

8.905

Educ.

PERIODICAL

University of Illinois

MAR 1 1965

LIBRARY

DEVELOPMENT RESEARCH DIGEST

Volume II Number 3 January 1964

Prepared by the
NATIONAL PLANNING ASSOCIATION
WASHINGTON, D.C.
U.S.A.

THE LIBRARY OF THE
JUN 11 1964
UNIVERSITY OF ILLINOIS

Inclusion of material in this publication does not imply
that the opinions and conclusions expressed therein
are necessarily those of the United States Government.

The DEVELOPMENT RESEARCH DIGEST is prepared for the Agency for International Development by the National Planning Association, a private non-profit organization in Washington, D. C.

The material in this DIGEST may be freely reproduced in the less developed countries, either in the original English or in translation into local languages, or may be adapted, provided credit is given to the author and original source, and further provided that the sense of the original is not distorted in adaptations. Where material carries a copyright notice, this notice must also be included in the credit citation.

Inclusion of material in the DEVELOPMENT RESEARCH DIGEST does not imply that the opinions and conclusions expressed therein are necessarily those of the United States Government or of the National Planning Association.

Inquiries or suggestions concerning any of these materials, or the original articles, should be directed to the U.S. AID Mission (or to the AID Representative) in each country. Where AID has no representative, send inquiries to:

Research and Evaluation Staff
Office of Human Resources and Social Development
Agency for International Development
Department of State
Washington 25, D. C.

DEVELOPMENT RESEARCH DIGEST

Volume II - Number 3

January 1964

A journal of
selected excerpts, summaries and
reprints of current materials on
economic and social development

Prepared by the NATIONAL PLANNING ASSOCIATION
Frances M. Geiger, DIGEST Editor

for

AGENCY FOR INTERNATIONAL DEVELOPMENT
DEPARTMENT OF STATE
Washington 25, D. C.

DEVELOPMENT RESEARCH DIGEST

Volume II - Number 3

January 1964

CONTENTS

PUBLIC ADMINISTRATION FOR DEVELOPMENT

| | |
|---|----|
| INTRODUCTION | 1 |
| PROBLEMS OF GOVERNMENT POLICY AND ADMINISTRATION IN LATIN AMERICAN DEVELOPMENT Roberto de Oliveira Campos | 2 |
| PUBLIC ADMINISTRATION -- A KEY TO DEVELOPMENT | 12 |
| NEW TASKS OF PUBLIC ADMINISTRATION Herbert Emmerich | 13 |
| ORGANIZING FOR INNOVATION WITHIN GOVERNMENT Wallace S. Sayre | 23 |
| BUILDING SUPPORT FOR TRAINING Lynton K. Caldwell | 31 |
| SOME RECENT BOOKS ON DEVELOPMENT ADMINISTRATION | 39 |

DEVELOPMENT PLANNING IN AGRICULTURE

| | |
|--|----|
| NATIONAL DEVELOPMENT PLANNING AND AGRICULTURAL PLANNING Marion Clawson | 43 |
| REGIONAL AGRICULTURAL DEVELOPMENT AS THE MEANS FOR IMPLEMENTING NATIONAL AGRICULTURAL DEVELOPMENT PLANNING Raanan Weitz and Yehuda Landau | 54 |
| THE SIGNIFICANCE OF POPULATION GROWTH FOR DEVELOPMENT PLANNING Gunnar Myrdal | 61 |
| REHOVOTH CONFERENCE ON COMPREHENSIVE PLANNING OF AGRICULTURE IN DEVELOPING COUNTRIES | 68 |
| FACTORS AFFECTING AGRICULTURAL PRODUCTIVITY | 69 |

WORLD TRADE

| | |
|--|----|
| DYNAMIC TRADE THEORY AND GROWTH IN LESS DEVELOPED COUNTRIES Joseph E. Haring | 77 |
| PROJECTING THE TRADE NEEDS OF THE DEVELOPING COUNTRIES IN 1970 | 92 |

INCREASING ECONOMIC GROWTH AND EMPLOYMENT

| | |
|---|-----|
| ECONOMIC DEVELOPMENT AND THE SECTORAL EXPANSION OF EMPLOYMENT Walter Galenson | 99 |
| INCREASING OUTPUT AND EMPLOYMENT WITH EXISTING CAPITAL ASSETS W. B. Reddaway | 104 |

FINANCING OF DEVELOPMENT

| | |
|---|-----|
| MOBILIZING DOMESTIC SAVING FOR PRODUCTIVE INVESTMENT | 109 |
| THREE SUCCESSFUL DEVELOPMENT BANKS IN THE MIDDLE EAST Victor E. Rockhill | 114 |
| THE ROLE OF SAVINGS AND WEALTH IN SOUTHERN ASIA AND THE WEST Edited by Richard D. Lambert and Bert F. Hoselitz | 120 |

PUBLIC ADMINISTRATION FOR DEVELOPMENT

Development plans and programs, no matter how well conceived and realistic, are of little effect unless they can be carried out. In view of the important development responsibilities of the government in most less developed countries, the effective implementation of plans and programs depends directly upon the quality of the public service -- its organizational structure and relationships to the political process, its recruitment and promotion practices, its training and professional capabilities, and its esprit de corps. Recognition of the key role of public administration in the development process has led in recent years to increased attention to the problems of, and methods for, improving the public service in less developed countries.

This section contains excerpts from four papers and books dealing with different aspects of this important subject. In a recent lecture, Ambassador Roberto de Oliveira Campos, one of Brazil's leading economists and development administrators, explains the difficulties and principles of public administration improvement in Latin America particularly as they relate to the government's role in economic development. Based on his many years of experience as a United Nations public administration adviser, Professor Herbert Emmerich of the University of Virginia discusses some of the ways for improving the effectiveness of the public service despite deeply rooted social, political and organizational obstacles. Professor Wallace S. Sayre of Columbia University focuses on the key problem of innovation in public administration in both its policy and procedural aspects. Finally, Professor Lynton K. Caldwell discusses the importance of enlisting the active support of political leaders, top-level government officials, and the people generally in training programs for improving the capabilities of public service personnel. The section concludes with short descriptions of some recent books on public administration in the less developed countries.

PROBLEMS OF GOVERNMENT POLICY AND
ADMINISTRATION IN LATIN AMERICAN DEVELOPMENT

Roberto de Oliveira Campos

[From "Public Administration in Latin America,"
a lecture in the Jump-McKillop Memorial Lectures
Series in Public Administration, delivered
at the Graduate School of the U.S. Department of
Agriculture, Washington, D.C., November 7, 1963.]

Most of the
lecture is
printed here.

It is an honor and a great opportunity to take part in the Jump-McKillop Lectures in Public Administration. But for me, it is also a rather rash adventure since I will be talking from notes and not from a prepared text. It is, indeed, a bold undertaking to speak extemporaneously in a foreign language, particularly a rather irrational foreign language, such as English. Nor was this the only reason why I hesitated to accept when I was invited to give this lecture. I asked myself, "What could an economist with a fairly narrow professional training say to people who are steeped in broad problems of public administration?" There are two different reasons which led me to accept the invitation.

The first is that substantial conceptual modifications have recently been introduced in the study of economics by what we call developmental economics. This change has placed great emphasis on the so-called non-conventional inputs -- organization, technology, management and entrepreneurship. Previously, the

Roberto de Oliveira Campos is
the Brazilian Ambassador to the United States
and one of Latin America's best-known economists.
He was formerly President and Managing Director of
the National Bank for Economic Development of Brazil.

emphasis of economists was much more on the traditional or conventional factors of production -- land, labor and capital investment. In fact, looking now at the problem -- at the intriguing and difficult problem of development -- the economists feel themselves rather guilty of mechanistic illusions, of having over-emphasized the importance of physical investment in roads, dams, buildings and the like and under-estimated the enormous contribution of qualitative improvements in the human factor of production as expressed in technology, organization, management and entrepreneurship.

The second reason is that economists are now much more inclined to discuss problems in other social sciences, particularly in the complicated and unpredictable art of administering and governing, because they recognize the difference between the spontaneous type of development which was characteristic of economic growth in the 19th century and the present pattern of what we may call "derived development."

In the first type of development, which was roughly that by which both the United States and Great Britain evolved, individuals or families or groups were possessed by a special n-Achievement (need for achievement) -- to use a term of modern psychology. This special motivation found its expression in very vigorous entrepreneurship, in the competitive experience, in the acceptance of technological change, in the propensity to innovate, etc. In contemporary derived development, it is the masses of the people, rather than the vigorous entrepreneur, that foster development by applying pressure for increased consumption, which in turn forces governments to take a leading function in promoting economic growth.

This pattern of derived development leads to an important consequence. It necessitates a much greater degree of government intervention in the development process as an organizer and motivator. Accordingly, there is a much more important role for public administration, and also a much greater emphasis on programming and planning, which are aspects of public administration.

In addition to this basic impulse, there are other reasons for a much greater role of public administration in the present-day developing countries than was the case in the 19th century.

First, the imperfection of markets and smallness of markets in the developing countries often leads to dangerous private monopolistic positions that may have to be averted or modified by government intervention.

Second, the abnormal uncertainty and risk which exist in such markets act as deterrents to private entrepreneurs, particularly in periods of rapid economic and social transformation.

Third, considerations of social equity -- namely the need for redistributing income either between persons or between regions -- impose a task for which the fiscal system is the only adequate instrument.

Thus, public administration becomes increasingly one of the first features of any rational strategy of economic growth. Public administration is important for all of the developing countries and its importance seems to grow in inverse relation to the level of economic development. Thus, in the emerging nations of Africa and Asia, the role of public administration goes beyond the organizational process in economic and social fields. Theirs is the immense task of creating a national unity and a national personality capable of surmounting the centrifugal force of tribal and regional rivalries and of instilling the ferment of change in traditional societies. In Latin America, where political independence was achieved over a century ago, but countries still linger in the throes of underdevelopment, the task is narrower than in Africa and Asia, though no less important. The task is the organization of governmental participation in economic and social development and the launching of reforms designed for the modernization of these societies.

In this lecture, I shall confine myself to public administration in Latin America, and I shall deal largely with the economic and social framework within which public administration has to operate rather than with the specific fields of public administration as such.

Obstacles to Public Administration Improvement

If we look at public administration in Latin America, we find certain psycho-social attitudes and other obstacles which it is important to examine objectively.

The first main obstacle to improvement of public administration in Latin America is the tradition of paternalism which is present in practically all of the countries. It affects the recruitment of employees, which is more often than not governed by the system of affiliation with or allegiance to a political clique than by objective and impersonal civil service systems designed to measure performance. The padding of government payrolls with unneeded employees is another effect of the paternalistic tradition. Still another is the insulation of state enterprises from the discipline of competition. And, a fourth consequence is the generally weak nature of the control procedures over government operations and government enterprises.

The prevalence of such paternalistic attitudes and traditions varies from country to country, and several of the countries of the region have already made a dent in the tradition by introducing objective systems of evaluation of performance and recruitment of personnel. But,

by and large, there is an unhealthy inheritance of paternalistic elements in the administration which prevents the impersonal handling of public affairs that would be conducive to impartiality of administration and efficiency of operation.

Another traditional obstacle is what I might call over-centralization in decision-making. This may manifest itself both at the regional level and at the sectoral level. At the regional level, there is an excessive weakness in most provincial and local governments, which leads to over-concentration of decision-making at the top level of the central government. In fact, I recall that one of the most persuasive reasons given in Brazil for the construction of Brasilia, the new capital, was that it might be the only way of preventing the President of the Republic from continuing to be in effect, though not in name, the mayor of Rio de Janeiro, prepared to take cognizance of the most minute problems of city administration.

At the sectoral level, there are also clear evidences of this same obstacle. There is relatively little room for delegation of authority either because of the low level of competence of the intermediate echelons of the public service or because of the reluctance of this middle level to take on or accept responsibility for policy decisions. This has led to a peculiar perverse solution which, in fact, does not solve the problem at all. It is the excessive fragmentation of the administrative machinery through the creation of autonomous agencies. Though this does manage to decentralize somewhat the making of decisions, it impairs the mechanism for centralized coordination, the evaluation of performance, the establishment of working norms, etc. Thus, a little more flexibility in decision-making is attained only at the cost of lack of coordination of the administrative machinery.

A third obstacle is the absence of an adequate and realistic theory of the role and limits of government intervention in economic development. We find throughout the continent a great deal of skepticism about the regulatory capacity of the government and, in contrast, an over-confidence in the managerial performance of government enterprises as well as an under-estimation of the waste involved in the excessive and premature socialization of many enterprises.

The Role and Limitations of Public Enterprises

Several harmful tendencies arise from the lack of a proper theory of the limits and role of government intervention.

One is the continuous temptation of government ministries and public enterprises to indulge in what might be called subsidy pricing -- namely, the charging of prices for goods and services that are inadequate to cover the costs or to finance future expansion. This leads to

a wrong distribution of the financial burden of state services, which is shifted from the user to the general public through inflation or general taxation in cases where specific taxation or the levying of direct user charges to meet costs would be the correct solution. There is also the problem of inefficient management, which is rather frequent in these efforts to enlarge the area of government intervention in consequence of disbelief in the efficacy of the government's regulatory powers. In addition, there is the familiar problem of inadequate evaluation and control of the operations of government agencies and public enterprises.

In my view, there is scarcely an area in which more and deeper thought is needed than that of formulating a correct theory of the government's role in Latin American development. I shall try to sketch an outline of a possible theory of governmental intervention applicable to countries in our stage and level of development.

Two premises must be recognized at the outset. The first is that, in the underdeveloped countries of Latin America as well as in other developing countries, a much greater degree of government intervention is needed and desirable than is the case in mature, cumulative growth economies, such as, for instance, that of the United States. And, this need for greater government intervention exists even though, admittedly, the level of governmental efficiency tends to be much lower.

The traditional role of the state is of overriding importance in the earlier stages of developmental investment, particularly for social overhead investment in health and education as well as for economic overhead investment in flood control, irrigation, sanitation, transportation, etc. However, there is also need for special incentives and government action even in the directly productive sectors. Four clear purposes justify government intervention beyond the conventional overhead investments. First is the need for pioneer investment to open new areas and territories. The second is what might be called preclusive investment arising from the need to avoid the creation of private monopolies. Third, there is supplemental investment in cases where it is desirable to alter the scale of production in an industry (e.g., steel) which requires an accumulation of capital beyond the capabilities of private enterprise at the existing level of private savings and investment. The fourth is what we might call expiatory investment needed to correct bottlenecks in certain investment sectors, such as power, transportation, etc., which result from inadequate incentives for, or punitive policies against, private enterprise. These are the major reasons to justify the contention that a much greater degree of government intervention is needed and desirable in Latin American development than is the case in the United States today.

However, there is a second important premise which is often overlooked in Latin America. It is that the only criterion for allocating

functions as between public and private enterprise should be their respective suitability and efficiency for the assigned tasks. I am using the term suitability in a broad fashion to cover political and security considerations of a paramount nature, which make necessary or advisable the intervention of the government. This second basic premise is often overlooked in Latin America where the debate between private enterprise and governmental intervention is conducted on ideological lines rather than based on a pragmatic response to the relative efficiencies of the two sectors in fulfilling any specific task.

Based on these two premises, I shall try to develop some policy norms that might throw light on this emotionally debated problem of government intervention versus private enterprise.

The first norm would be that, whenever feasible, indirect controls through credit, taxation and foreign exchange policies should be preferred to direct controls and to administrative rationing, for two reasons: the technical and moral problems inherent in the administration of direct controls; and the desirability of preserving some of the basic allocating and guiding functions of the price system.

The second norm would be that the regulatory powers of the state should be in principle preferred to direct managerial control by the government, and the latter in turn to full ownership by the government. This principle is based on two considerations: that the government's financial and managerial resources are inadequate in Latin America even for those conventional tasks which are beyond the capacity of private enterprise; and that socially desirable regulations can in most cases -- though not, of course, in all -- be enforced without either managerial control or full state ownership.

The third norm would be that government investment as a rule should be concentrated in the economic and social overhead areas. Exceptions should be made, however, to permit and encourage government intervention when there is need for the four types of government investment already mentioned; namely, pioneering, preclusive, supplemental and expiatory investments.

The fourth norm would be that government planning and investment should as a rule be based on non-inflationary methods of raising resources through taxation, internal borrowing, or foreign loans rather than on inflationary methods.

Perhaps a fifth norm should be added which experience has proven extremely difficult to implement. This is for the government to preserve the willingness to withdraw from a sector or enterprise after the pioneering stage is completed. I say that this is a difficult norm to follow because, having myself served as a development banker, I found

it practically impossible to withdraw government ownership even after the child had well outgrown the weaning stage.

I have expatiated on this problem of the scope and limits of government intervention because I believe it is at the very core of the problem of public administration in Latin America. A comparatively small number of skilled administrators must undertake quite impossible tasks not only of conducting the normal operations of the government but also of supervising and managing a proliferation of government enterprises and entities. In most of these fields, the necessary objectives could best be accomplished by a simple regulatory control, if only people were less skeptical about the effectiveness of government regulation and more skeptical about the efficacy of government management. This seems to be a peculiar twist of Latin American opinion. While recognizing that a regulatory agency requires fewer personnel and, therefore, could be more adequately staffed than a host of public enterprises, many people somehow still prefer to load civil servants with the overwhelming responsibility of direct administration than to create a relatively small and effective body of regulators.

Lack of Continuity in Public Administration

Let me deal now with another problem of public administration in Latin America which I would call an abnormal discontinuity in administration. This takes place both at the operational level and at the decision-making level.

At the operational level, the frequent succession of governments means that the civil service floats without real roots, that it does not benefit from regulated recruitment procedures and tenure, and that at times it has no esprit de corps. This leads to an excessive instability of the government machinery in response to changes of regime. Of course, public administration is essentially a political task and the civil service generally cannot and should not be inert to political changes. But, there is some intermediate point between complete inertia, creating a divorce between political orientation and administrative routines, and complete political transformation of the administration, with every new government disrupting the effectiveness of operations. Fortunately, I think that substantial progress has been made in most of the Latin American countries in endowing the civil service with a greater degree of continuity. In Brazil, for instance, we have overcome a substantial part of the problem and perhaps indulged in the opposite extreme of giving excessive stability to public officials. In any case, we have certainly eliminated the major part of the problem of periodic disintegration of the government machinery on the occasion of a change of government.

Discontinuity at the policy-making level is what a U.S. economist, Professor Hirschman of Columbia University, has recently called "a pseudo-creative response." Each new administration, each new government, finds itself possessed of a convenient amnesia, and forgets all of the progress made, the research and experience accumulated, by the preceding government. The necessary process of creation starts afresh. This occurs only too often in our countries -- although I might say that even in some much more stable and mature societies one often finds the government embarking feverishly on unnecessary origination of policies and programs. This periodic governmental amnesia, which leads new administrations to forget the accumulation of experience and the work done by their predecessors, leads to the cynical conclusion that men never really learn from experience but only from fatigue!

Motivation versus Understanding

We come now to what Professor Hirschman has called the dilemma of motivation versus understanding. In developed societies which have completed their process of maturation, technical creativeness and continuous adaptation lead to incrementalist attitudes toward problem-solving. The developed countries usually tackle problems when they are ready for solution and when the solution is feasible. The developing societies are in a hurry to develop and are often impatient to solve problems, particularly when they are shaken by the revolution of rising expectations.

(I may say parenthetically that I have great difficulty in selecting terminology to describe the underdeveloped countries from the succession of terms that have been used since World War II by those engaged in one way or the other in studies and programs regarding economic development. Indeed, the terminology develops much faster than the developing countries themselves! Originally, they were called the poor countries, which reflected the rather fatalistic attitude of the prewar period. Then, a more dynamic concept was injected; they were called the backward countries, presumably because at some point they would be able to start moving forward. Next, they were called the undeveloped or underdeveloped countries, then the less developed countries, then the developing countries, then the emerging countries. Now that they are shaken by the wind of rising expectations, some facetious soul has called them the expectant countries.)

Well, one of the characteristics of these expectant countries is to try to attack simultaneously all of the many-sided problems, many of which do not offer a real possibility of solution. Once failure results, they move to the other extreme and relapse into some sort of ideological fundamentalism, which attempts to seek solutions not in increments of reform but in drastic revolution. The problem of administration then becomes a debate between ideologies. This dilemma between motivation

and understanding is a serious one and undoubtedly affects the direction, meaningfulness, and effectiveness of popular decisions in Latin America.

We also find manifestations of this same syndrome in the Alliance for Progress. The Alliance for Progress is based on the concept that many-sided and multi-varied reforms should be attempted for improvement and modernization of Latin American society. This poses immediately the problem of incompatibility between the short run and the long run. In the long run, the various objectives of the Alliance are compatible, namely, agrarian reform, fiscal reform, educational reform, creation of a suitable climate for private investment, and reasonable price stabilization. In the short run, however, these objectives may not be reconcilable. The Alliance for Progress is a catalogue of evils to be cured, and efforts to overcome them may create other problems if the globalist strategy of trying to reform everything completely is not complemented by implementalist tactics. We ought to be satisfied at any given time with partial reforms, with incremental reforms, rather than being over-ambitious and expecting complete social transformation at one fell swoop.

Some of these dilemmas between motivation and understanding are already being felt in Latin America. If we press vigorously for reforms, for example, for redistribution of income, it is unrealistic to expect at the same time a climate favorable for private investment, simply because private investors are precisely the groups that are likely to get panicky at reform of income distribution. So, if you set your priority on this reform -- which is probably a correct and desirable objective -- then you ought not to be too sanguine of improvement or even maintenance of the private investment climate. In fact, one should be sophisticated enough to countenance a temporary decline of the rate of private investment. There is too little awareness both in Latin America and in the United States of the fact that there may be a short-run incompatibility between otherwise desirable objectives. We should not get impatient, discouraged or irritated by the fact that, in the push for reforms, one objective has to be temporarily sacrificed to another. Similarly, price stabilization measures are desirable in themselves and useful for long-run development but at times are rendered more difficult by the pressure for social equity and social justice. Preaching the gospel of social justice stimulates claims for welfare benefits, which are desirable in themselves and perhaps are not postponable, but which render the achievement of price stabilization an even more complicated task than it normally is.

I have outlined some of the main psycho-social problems that form the context within which the public administrator has to operate in Latin America. I hope that some limited usefulness will be derived from this analysis, which admittedly is not a detailed description of Latin American administrative procedures and problems. As an economist,

I would like to conclude with a quotation from one of your economists, Kenneth Boulding, who has pleaded for a balanced approach to this problem of private enterprise and management versus public enterprise and management. His way of formulating the problem strikes perhaps the right cautionary note in approaching this controversy in Latin America. The socialist, Boulding says, is likely to be too optimistic about the power of the government to do good and the economic liberal too optimistic about the power of the market to prevent evil.

The above material is copyrighted, but may be freely reproduced, or adapted, provided the sense of the original is not distorted in adaptations, and further provided that this restriction as well as the following credit citation accompany each reproduction or adaptation:

From "Public Administration in Latin America" by Roberto de Oliveira Campos, Public Administration -- A Key to Development; published and copyrighted © 1964 by the Graduate School Press, U.S. Department of Agriculture, Washington 25, D. C.

PUBLIC ADMINISTRATION
-- A KEY TO DEVELOPMENT

In October and November, 1963, the Graduate School of the U.S. Department of Agriculture sponsored a series of five lectures, under the above title, on the importance and problems of public administration in the less developed countries. The five lecturers were David Bell, Administrator of the U.S. Agency for International Development; Chief S. O. Adebo, Nigerian Representative to the United Nations; Hamzah Merghani, Director of the Division for Public Administration of the United Nations; Roberto de Oliveira Campos, Brazilian Ambassador to the United States; and U.S. Senator Hubert H. Humphrey.

The Graduate School of the U.S. Department of Agriculture is a unique, self-supporting educational and training institution. It was established by the Department of Agriculture to meet the need for advanced and refresher training of civil servants in the subject disciplines and skills required to administer the many programs of the Department and other government agencies.

Most of Ambassador Campos' lecture is contained on pages 2 to 11 of this issue. Mr. Bell's lecture dealt with misconceptions regarding the transferability of U.S. administrative institutions and practices to the less developed countries and the extent to which U.S. aid and technical assistance can and cannot help in the modernization of public administration in these countries. Chief Adebo described in some detail Nigeria's experience in accelerated training of Nigerians to staff the country's civil service. Mr. Merghani discussed the nature of the problem of public administration improvement in the less developed countries and described the UN's technical assistance programs in this field. Senator Humphrey spoke on the urgency of administrative reform in the less developed countries and described the different kinds of U.S. programs providing assistance in this process.

The five lectures will be published soon in paperback form and will be available at cost from the Graduate School Press, U.S. Department of Agriculture, Washington 25, D.C.

NEW TASKS OF PUBLIC ADMINISTRATION

Herbert Emmerich

[From "Administrative Roadblocks to Co-ordinated Development," in Social Aspects of Economic Development in Latin America, Volume I, edited by Egbert de Vries and José Medina Echavarría; Paris, United Nations Educational, Scientific and Cultural Organization, 1963, US\$5.00, pp. 345-360.]

[The papers in this volume were prepared for a meeting of a working group of experts on social aspects of development in Latin America, held in Mexico City in December 1960. The papers dealt with various social aspects of current Latin American economic problems; the prerequisites for rapid economic growth; the strategy and execution of development programs; and the roles of education, administration and research in development.]

This paper attempts in brief compass to select a few topics in the vast array of problems posed by the lag of public administration effectiveness in Latin America. The topics selected are chosen because they appear to deserve a priority of attention in the endeavour to overcome the administrative lag. There is increasing awareness and acknowledgment that this lag is one of the major roadblocks to co-ordinated and effective economic and social development.

These are
excerpts
from the
book.

Herbert Emmerich is Professor of Political Science at the University of Virginia, Charlottesville; President of the International Institute of Administrative Sciences, Brussels; and was formerly for many years Senior Consultant in Public Administration, United Nations, New York.

Economic and social theory has been strangely slow to recognize and to take into account the strategic influence of the effectiveness of the public apparatus in an age of increasing state interventionism. The government is expected to induce rapid agricultural and industrial growth while simultaneously raising the standard of living. Development is expected to bring immediate results in general well-being.

The new public services are increasingly technical, complex and interrelated. For their discharge, there is required a high degree of continuity and expertise. But they are being superimposed upon unstable and unprepared political and administrative structures which have only in exceptional instances demonstrated any high degree of stability and effectiveness in the administrations of older and more traditional government services such as law and order, taxation, foreign affairs, or even postal services. In fact, in the past, effective administrative services have not been an important criterion of the government's prestige.

Furthermore, in most Latin American countries, the stereotype of state action is personalistic and juridical rather than institutional and managerial. It is highly centralized. The rapid changes are expected to be produced in a milieu which is essentially legalistic. The great ethnic and geographic distances which separate the inhabited provinces of some of these countries from their capitals, not to speak of the educational abyss which lies between them, make the solution of the administrative problems even more difficult. In no part of the world are regional and local separateness and cultural autonomy more notable than in most of Latin America and, paradoxically, in very few places is complete centralization of administrative operations more prevalent.

Political Science and Public Administration

It must be frankly faced at the outset that the fields in which public administration operates are closely related to the political stage of development and maturity which has been reached. In many problems referred to him, the technical expert in administration, both foreign and domestic, needs the simultaneous help of the discipline of political science. This science, while it has been somewhat neglected in Latin America in favour of a preoccupation with law and economics, has some claims to respectability in the social science family. Public administration is part of, and subordinate to, a political setting and no realistic appraisal of its shortcomings can avoid the difficult and often sensitive problems of the political environment in which it must function.

There is a receptivity to innovation and modernization in many quarters in Latin America. But there is a paucity of objective and critical research in the many fields which political science embraces.

Political science faculties are small and weak compared to those in law and economics, and lack research funds and facilities. There is much room for analytical, comparative, and creative insights of political science in such fields as the structure of the state, the role of the presidency, legislatures and representation, legislative-executive relations, staffing of legislatures, bill drafting and legislative research, national parties, federalism and relationships of the national government to the state governments and to municipalities, voting systems and citizen participation, and lastly the administration of justice and relationship of the judiciary to the executive and legislative branches.

This research, analysis and synthesis into political structures, relationships and procedures should be performed by the political scientists and statesmen of each country. This is a field in which the external expert can be helpful only in a limited way and in which the actual studies and solutions to be both competent and effective surely must be indigenous. The foreign specialist can by lectures and writing on comparative systems bring to bear some of the pros and cons of foreign thought and experience; and he can be helpful in demonstrating scientific methods which have been used in other countries in the study of these problems. Foreign universities can offer fellowships in political science for advanced studies by Latin American students. The external expert, however, cannot and should not go as far in these matters as he often is asked to do in the less sensitive and more technical fields. The analysis made and the solutions reached in the field of political science must be more and not less adapted to the character, spirit and genius of the countries than has been the case in the past, which perforce relied too uncritically on foreign examples.

In view of this caveat, it may be brash to venture a few suggestions as to the direction which such political studies should take but there are a few general topics which might be mentioned that stand out as requiring special attention. The political as well as the administrative structures and procedures of the modern service state would appear to require at least three elements: greater stability and continuity, greater unity on large national purposes and programmes, and wider decentralization in execution and operations. The service state is action oriented and there needs to be built into its structure a greater facility for administrative and technical effectiveness and a relatively smaller preoccupation with abstract and juridical concepts and procedures. The excessive burdens of Presidents and Ministers at the centre need to be studied not only to free them from excessive detail for the larger problems they need to be concerned with but to ensure that the political forms engender in themselves a process of citizen participation, leading to growing civic consciousness, responsibility, and the development of national leaders. The modern concepts of basic education and community development in both rural and urban areas, and their

relationship to the powers and duties of states and municipalities should be considered not only for their immediate contributions but from the standpoint of the integration of remote communities into the national life.

Institution Building

The growth of central agencies for planning and co-ordination illustrates the need not only for building physical structures but for the creation of administrative and social institutions. Institution building is one of the main tasks of national programmes of development and of technical assistance. In building national institutions, however, great care must be taken to construct them on national designs suitable to the mores of the country and not transplant a carbon copy of foreign establishments. Above all, the extreme specialization of the institutions of North America and of Western Europe are to be avoided. Functions that are related should be grouped and training for the personnel of these institutions should be as broad and general as possible. Rotation and transfer of personnel in the public administration will help to instil this breadth of view and will foster the growth of voluntary co-ordination at all levels of government.

Here, again, a special problem is found in Latin American governments. In highly personalized societies such as these, with strong attachments to families, friends and localities, the transference of loyalties to new and impersonal institutions is not easy to achieve. But from the earliest days, it has been demonstrated that such transference is not impossible if one thinks only of the army and of the church as institutions. In more modern times, one can point to new institutions which have had a certain amount of success and prestige and have attracted able and loyal administrators. Conspicuous examples are the central banks, contralorias (general accounting offices), health services and certain autonomous agencies. All of these institutions are not without some shortcomings, and are in need of periodic reappraisal, evaluation and modification with changing times. They are merely mentioned here to refute the widespread opinion that successful institution building is foreclosed as a possibility in Latin America.

The creation of carefully conceived central institutions, consistent in structure and symbolism with national customs, has an additional potential value. Such institutions can become the links between the world of thought and the world of action. They have need for planning-minded and intellectually trained personnel whose activities will influence the activity of the universities and technical schools and in turn will be influenced by them. The creation of new institutions in the intellectual processes of administration can perform a useful function by acting as the much needed bridges between the worlds of theory and practice.

Adaptation of Personnel Systems to a National Culture

Personnel systems in Latin America are still in a beginning stage but gradual progress is being made and there is an increasing awareness that the multiform technical services of the modern state cannot be met without a proper recruitment policy. In some countries, there is increasing evidence of dissatisfaction with the cases of inefficiency and corruption found in the public service -- conditions which are inevitable when part-time service is often found, at low salaries, without a system of examinations of qualifications, without uniform classification and pay grades, and without any assurance of job security and continuity, nor the possibility of a dignified retirement upon superannuation. Until this dissatisfaction grows into indignation leading to a new attitude towards work in the public services as a dignified and honourable non-partisan lifetime career, the tasks of the government in furthering programmes of economic and social development will continue to be hampered and often arrested.

The system of hit and miss selection and frequent turnover of personnel is one which practically every technical assistance expert encounters. Ministers and heads of departments often approve reforms suggested by the expert's investigations and efforts. But, when the process of implementation or installation begins, there is a great wall not only of opposition at the lesser echelons, but more often of complete inertia, misunderstanding and silent sabotage. The transitory personnel do not identify themselves with the reputation or the prestige of the service in which they are employed, and there remains a persistent fear of any innovation, small or great, that may even remotely affect their job status.

There is an urgent need for personnel and manpower planning to forecast requirements over a long period of time and to provide the resources needed to train skilled administrators and technicians. As a foundation for this continuous work, sound personnel data, statistics and research, and manpower forecasts are required. Very few countries have reliable data on the number of persons on public payrolls, and even fewer have any records of turnover, output, productivity or unit costs of repetitive operations by departments, projects, or sections of the work; and very few have any long-term projections of manpower needs as a basis for recruitment and training. The managerial viewpoint of the personnel needs for programme performance is only beginning to emerge here and there.

Ministers, even where there is a central office of personnel, are frequently involved in minor personnel matters. At the same time, they find their desks piled to impossible heights with paper work which ought to be delegated in order to free them to operate at their proper level

of planning and administering the high affairs of state, and this situation in turn reduces both the effectiveness and prestige of the public services.

It is interesting to note in scanning report after report of country experts in technical assistance from every conceivable field of direct or indirect government activity how often the insistence on better personnel for one particular function appears. There is a general agreement that better pay, better qualifications, and better conditions and training are essential, but it is often recommended that these reforms begin in the single agency under review. It is not unnatural for enthusiastic experts to believe that their fields of competence are unique and of critical importance, and that reforms should begin with them. But, in most cases, they are helpless to undertake the necessary reforms individually.

There is increasing evidence that independent and specialized efforts to reform personnel administration will not be effective. It may seem more difficult at first to apply a government-wide approach to personnel reform, and the task at times may seem so great as to be insurmountable. But, though the government-wide approach to personnel reform seems to be essential, it does not follow that it is necessary to classify and examine for every position, high and low, at the very beginning. Even in advanced countries, classification has proceeded gradually and has been applied decade by decade to more and more sectors of the service. Each country will have to decide its own approach, technique and strategy to solve this problem. But in Latin America, a good first step would seem to be the creation of a permanent full-time career corps of highly qualified administrative and professional personnel, recruited by a system of rigorous non-partisan examinations, whose members, after a period of probation and training, would be granted a tenure protecting them against arbitrary discharge without cause. On the foundations of the institutional and structural changes that would be laid by its creation, such a corps would grow in prestige and importance with the years. Reforms would gradually creep in at the clerical and manual levels of the service. For, such a corps would itself be the strongest advocate for decency, morale, and productivity at all levels of the public service.

The creation of such a top administrative and professional corps as a first step in personnel reform, at the time when new national institutions and central offices have to be staffed, would also have some advantage from the standpoint of national acceptance and symbolism. To be sure, it will have some of the elements of an élite or officer group, but this is not necessarily a valid objection to its creation. It will be mostly recruited from those people who have had the advantages of a university education, but the doors should always be left open for gifted and ambitious personnel from the lower ranks of the service to become

candidates for selection and promotion to the administrative and professional corps. Great care should be taken with their upgrading and training. The possibilities for the creation of the linea gerencial (managerial corps), as an Argentine official has called it, would seem to be excellent. At this level, then, is the chance to instil a spirit of government-wide interest and appreciation in the training period that accompanies the probationary years. A classification plan of rank, indicating career possibilities by promotion within the service, is to be preferred to examination for minute specialization in any one job. Options can be granted for technical skills in certain large fields of competence rather than for the precise requirements of a single post. This would argue for the European instead of the North American method of personnel classification and for a versatile, flexible, and interchangeable broadly gauged corps of government-wide young career officials, who will advance to positions of high responsibility over the years.

The creation of such an administrative and professional corps is the place to begin with personnel reform because it is where the need is greatest and where it will have the greatest appeal to younger people. Job titles should be chosen with the utmost care, and unsuitable Anglo-Saxon nomenclature should be avoided. The system should be kept as simple as possible, its rules and regulations should be carefully drawn up and widely disseminated. From the beginning, it must be rigorously and impartially administered.

At various stages of a man's career, such as induction, promotion, and retirement, public ceremonies might be held to enhance the dignity of the service and to dramatize personal progress. For outstanding and distinguished accomplishments, honours should be bestowed and incentives could be offered in the way of promotion or periods of travel and study. The creation of such an administrative and professional corps needs an element of glamour as well as of integrity and impartiality. The evils of bureaucracy can be mitigated by wide opportunities for promotion, training and self-improvement and provision for dismissal for just cause.

Overcentralization as the Major Roadblock

The rationalization of government structure and dignified and impartial personnel administration on a merit basis are an integral function of problems of delegation and decentralization. When both the political policy posts and the subordinate positions are subject to constant change, fluctuation and turnover, a paralysis of delegation and of decentralization ensues. The personnel having no security of tenure live in a constant state of anxiety not only against dismissal by a new administration but every time there is a rumour of a ministerial change.

The chronic state of instability to which most ministries and departments are subject in many developing countries induces an unwillingness and incapability of assuming responsibility and of taking initiative. Under these circumstances, the subordinate official is always more apt to be penalized for innovation than for routine or even neglect. The second and third job which may be held by the part-time official receives a major attention because it may be in an industry, trade or profession where career opportunities may be greater than in the precarious ministry. Loyalties are diverted away from the government, and the government post becomes a time-serving type of activity with a minimum of attention and spirit.

Overcentralization, which is deplored generally in Latin American public administration, is the result of this environmental situation and is not a cause in itself. Once delegation has been well started within a central ministry, there is much more likelihood that it will be gradually radiated outside the capital city. Only after the process of delegation within a ministry has begun will there be the proper framework for the equally necessary and desirable deconcentration to area and field outposts of the ministry where the actual operations should be performed if a myriad of detail is not to be referred to the capital. Only then will the Minister have the time and opportunity to do justice to the highest role and function of his office in analysis, planning, and general administration, in playing his proper interdepartmental role in cabinet councils, and in representing and defending his functions to the parliament, the press and the public. And, only then will there be a beginning of devolution of power to state, regional and local authorities in areas of activity in which they can make local decisions.

Local government in its competence to perform local public services has lagged behind central government administration in many parts of the world and particularly in Latin America. In a time when economic and social development is accompanied by a rapid spread of urbanization, increased attention needs to be given to improving the standard of urban units of government and administration. But the devolution of powers to local authorities and elected councils has political as well as administrative aspects and insecure and unstable governments are often loathe to devolve even minor powers and functions to such units.

But, there is a growing awareness of the contributions to economic and social development and, one might add, to political maturity and responsibility that can be fostered at the level of the local authority. The municipality is in a good position to co-ordinate at the local level the provision of the infrastructure, i.e., the basic physical environment for industrialization. A local authority will be much more keenly aware of the waste and inefficiency of unco-ordinated physical development, such as the half-finished building or highway, than a ministry

hundreds of miles away would be. Participation by the citizens through their locally elected councils has the further advantage of spreading out the area of initiative and choice. It enables the local communities to become identified with national programmes and objectives; it gives them an opportunity to mould and adapt large national plans to local needs and desires; and it tends to foster the growth of a sense of competence and responsibility in the field of public affairs.

Local authorities are handicapped by a number of factors which have prevented them from playing an effective role in national development. Many of them, particularly rural towns and villages, are too small in area and in population to afford a viable unit of administration in a modern setting. In many cases, municipal legal powers and functions are imperfectly defined and they are under a variety of obsolete controls, often duplicating, and usually restrictive, on the part of the state and central governmental agencies. They lack trained personnel, and in respect to wages and security of tenure their standards are often inferior to those of the central government.

The greatest single handicap, however, to the development of local authorities has been the lack of an adequate and dependable source of income to enable them to render even a minimum standard of local service. They require regular and dependable sources of revenue for current operations, and a source of capital loan funds for investments and projects of a non-recurring nature. To meet the problem of operating revenues, some countries have reserved the real property tax as the special province of the local authorities. In other cases, where the central government collects all internal revenues, a certain proportion of the national revenue has been earmarked to finance local governments and they receive these as a matter of right. For investment in large projects, municipalities can be given access to borrowing capital funds in central municipal banks or development corporations, and the grant-in-aid, conditioned upon meeting certain standards, continues to be an effective form of financial support in cases where loans are impracticable.

There is need for a new kind of institution to foster and assist the growth of effective municipal administration. In addition to the traditional supervision, control and audit at the centre, there is emerging the concept of a national agency which renders technical assistance to localities. In some countries, a voluntary association or union of municipalities meets this need in whole or in part. But in most cases there is needed a central government agency of urban affairs to render this service, and in some countries the rendering of technical services to localities is assigned to a national municipal bank.

The variety of technical services that a well-organized central agency can render to local governments is almost limitless. It can provide information on laws and decrees affecting localities. It can assist

in such fields as city planning, housing and building codes, traffic regulation, transportation, purchasing and testing of materials, construction of public works, sanitation, and water supply, and schools and social welfare services. It can also assist localities in such matters as personnel administration and on improvement of budget, accounting and auditing practices. And in some countries, the local personnel are a part of a national civil service, giving the opportunity for better selection and for a more promising career by transfer and promotion. A sympathetic and progressive central agency can do much to advance the competence and self-reliance of municipal administration.

Summary and Conclusions

1. Economic and social development programmes in Latin America are placing increasing burdens and new responsibilities and tasks on the modern service state.
2. The administrative lag is a serious handicap to the government in planning and executing co-ordinated programmes of economic and social development and reform, and upgrading of the public administration are essential elements in overcoming this handicap.
3. Public administration is closely related to the political environment in which it functions and there is a great need for strengthening the discipline of political science in each country, and its contribution to the perfecting of political structure and functions.
4. Development requires not only competence and skill in many specialized fields but also requires a co-ordination in the use of these skills toward the end of accomplishment of complete and finished projects.
5. Latin American countries have demonstrated an ability to create new public institutions and in the field of co-ordination, planning and administration a number of new types of central institutions are emerging which hold great promise for the acceleration of development.
6. Personnel systems need to be improved in the public service and the way to begin seems to be by the creation of a non-partisan career service, recruited on merit principles for the administrative and professional posts at the time when new central institutions are inaugurated in the fields of co-ordination, planning and administration.
7. The major roadblock to co-ordinated economic and social development is the overcentralization of government operations. There needs to be more delegation of authority within the ministries, decentralization of functions to regional and area field officers of the ministries, and devolution of powers to states and municipalities.

ORGANIZING FOR INNOVATION WITHIN GOVERNMENT

Wallace S. Sayre

[From "Some Problems of Public Administration in a Developing Economy";
The Indian Journal of Public Administration,
The Indian Institute of Public Administration,
New Delhi, Vol. VIII, No. 2, April-June, 1962,
pp. 137-152.]

These are
excerpts
from the
article.

In its strict definition, innovation is a term of neutral meaning -- a change to something new, a change which may be either wise or unwise, prudent or risky. But in general discourse the usual connotations are affirmative: innovation is taken as a sign of progress, innovators are regarded as bold and energetic men disposed more to experiment than to caution.

However, political and governmental systems, like other established institutions, tend toward emphasis upon stability and continuity, preferring precedent to new departures in policy or method. Governmental decisions are thus more often seen as opportunities to minimize risk than to accelerate change. When pressures for innovation are strong, governments often hedge against the costs of possible error by indulging in symbolic change in policy or procedure as a substitute for substantial experiment; that is, political leaders and officials frequently wish to appear as bold innovators while simultaneously reducing the penalties they might suffer if the experiment does not succeed. The general consequences are, first, that political and governmental

Wallace S. Sayre is Eaton Professor of Public Administration at Columbia University, New York; and was Visiting Professor, Indian School of Public Administration, New Delhi.

innovations encounter deep-seated resistance to change and, second, that the rhetoric of innovation is a more familiar phenomenon than is the fact of innovation.

Main Sources of Innovation

Despite these barriers to innovation in political and governmental systems, governments in the contemporary world are the objects of heavy demands for change, for innovations both in their policies and in their organization and procedures. Especially do the governments in countries committed to accelerating the development of their economic systems experience these pressures for innovation. They must perforce adopt the vocabulary of innovation; having accepted the vocabulary, they are somewhat committed to the practice.

This favourable disposition of governments toward innovation in countries with developing economies is thus in large part the product of powerful forces external to the governmental system itself. The rising expectations of the people that government will take the lead in improving their social and economic condition is one of these forces. The pressures of increasing populations are another. The observed benefits of technology constitute an additional spur to innovation, as does also the competition among national political systems to rank high in terms of economic growth rates, levels of income, food supply, education, health, and other accepted indices of social and economic progress. Many of the innovations in public policy and managerial procedures are accordingly consequences of pressures external to a particular political system.

Innovation also has sources within the national political system. Prominent among these is the political party. The exigencies of electoral campaigns, whether to gain office or retain it, impel the political party toward commitments to general programmes of innovation, sometimes to quite specific ones; where inter-party competition is close the commitment to innovation is often sharpened. Interest groups, operating within parties or as separate institutions, also generate many proposed innovations; since interest group proposals are ordinarily more specialized than the general appeals of the political party, the innovations thus sponsored frequently acquire persistent champions who push the proposals through the lengthy chain of approvals required before adoption and implementation are achieved. The communication media (especially the mass media) perform a similar function in many instances of innovation, more episodic in their attention to public policy or performance than are many interest groups; the communication media nevertheless often provide the initial stages of generating and publicizing proposals which others carry through to completion.

Legislators, particularly through their inclinations to be critics of the executive, and especially if they are members of the opposition, are a continuous source of proposed innovations. So, too, are the "political" executives, notably when the political system encourages intra-executive competition by awarding prominence and promotion to those members of the executive who are identified as successful innovators.

The bureaucracy (i.e., the permanent staff of the executive) has a somewhat ambiguous role in the matter of innovation. Its precepts and training emphasize its role as the guardian of continuity, stability, co-ordination, prudence and precedent. These are qualities which, however desirable otherwise, cut across the grain of innovation, making the bureaucracy more often a vetoer than a sponsor of innovations. Yet the bureaucracy, because of its position in the governmental system, has many opportunities to identify the need for change; it has the knowledge and the skill to frame alternative modes of innovation; and it has superior strategic assets in pushing forward any proposal to which it is committed. If the bureaucracy ranks low among the main sources of innovation, then, this fact is a consequence of its code of behaviour, not its lack of opportunity or capacity. The incentive systems of bureaucracies rarely reward "mavericks" or innovators; recognition and advancement tend rather to go to those who conform most meticulously to the code of precedent, caution, and co-ordination.

Two Categories of Innovation

For the purposes of this discussion, it may be useful to distinguish two related but distinctive types of innovation. One of these we may call policy innovations; the other, procedural innovations. While these ends-means distinctions are arbitrary, and in real life are often inextricably interwoven, the differences are ordinarily clear enough and substantial enough to permit separate consideration and analysis.

There are of course many alternative ways of classifying innovations -- for example, scientific and/or technological innovations; revolutionary or incremental innovations; political or managerial; and so on through a long list of possible, and probably useful, categories. In the context of the question before us, however, the terms policy and procedure appear to be the most relevant.

Policy innovations may be defined as including those changes in governmental purpose or activities which embark the government upon a new course of action, or accelerate sharply some present activity, or reverse some present emphasis. Procedural innovations, in contrast, may be defined as including primarily changes in the government's methods of carrying out its programmes. The main purpose of this distinction between policy and procedural innovations is to explore the assumption that the two types of innovation tend to have different origins and that

the arrangements for stimulating innovations in policy may be different from those for stimulating procedural innovations.

Institutionalizing Innovation

To attempt to plan for innovation, to institutionalize novelty and invention, seems at first glance to be a contradiction in terms, to sacrifice spontaneity and risk-taking to the bureaucratic ideal of orderly progress from precedent to precedent. Yet the research laboratories of science and technology, in both the private and the public sectors, demonstrate that change in policy and procedure can successfully be made the mission of an organization, that "the invention of inventions" can be made an institutional assignment.

Transferred to the larger governmental scene, this argument suggests that it is feasible to establish, within the executive wing of the government, agencies with the assigned responsibility to generate innovations in public policy and procedures, to stimulate other governmental agencies to do the same, and to carry at least some of the responsibility for pushing formal proposed innovations from first formulations to final accomplishment.

Institutions for Policy Innovations

The planning agency is the widely accepted model for institutionalizing policy innovations. It is embraced enthusiastically by some governments, and approached warily by others. The planning agency has almost everywhere been an agency of controversy when it takes its assignment seriously; it escapes controversy only by adopting for itself a symbolic role rather than a role of power and action. The fact of its controversial status in the field of policy-making is not a defect of the planning agency as an institution for policy innovation; no one expects innovations in public policy to be non-controversial.

The difficulty of the planning agency model in the field of policy innovation is that the planning agency rarely has its highest commitment to innovation. Instead, planners and planning agencies more often give their first and greatest emphasis to co-ordination, unity, consistency, completeness, and other aspects of high rationality. These are, of course, impeccable values, especially in the codes of bureaucracy, but they also tend to be purchased at the expense of spontaneity, novelty, or sharp departures from precedent -- all essential characteristics of innovation. It is perhaps an exaggeration, but not irrelevant, to suggest that co-ordination is frequently the graveyard of innovation. Nor is the planning process free from tendencies to become static, to develop an affection for its own precedents, to regard the plan-on-paper as an object to be guarded from the threat of change. It is no doubt inescapable that the first of a series of plans will contain more policy

innovations than any succeeding plan, and that each successive plan will contain fewer innovations than its immediate predecessor. But if this be so, is it not pertinent to ask whether the values of co-ordination and precedent have not triumphed over the values of innovation?

If the planning agency has these shortcomings as a model for institutionalizing innovation, what modifications in the model would maximize policy innovations?

The most obvious modification would appear to be a sharper mandate to the agency to place policy innovation high on its list of priorities, to regard innovation as a basic value equal in importance to the other values of planners and the planning process. Less obvious perhaps, but more important in the long run, would be to require that plans shall not be so tightly drawn, or so rigidly adhered to, as to smother spontaneity, novelty, or innovation during the course of the plan. These are not merely abstract observations. Instead, they indicate that there is a latent contradiction between the goals of planning and the goals of policy innovation; the planning process moves toward symmetry in policy, while innovation moves toward change often at the expense of the symmetrical plan. It is possible to argue that consistency and rationality are the superior virtues, and that innovation must take the second place. It is also possible to argue that ambiguity about these conflicts has its uses. But ambiguity should hardly be pushed, by either the planners or the protagonists of innovation, to the point of self-deception or confusion. To do so is to invite both parties to indulge in the rhetoric of planning and the rhetoric of innovation, depriving the government of the substance of both planning and innovation as public policy assets.

Policy innovations would seem to be most favoured if the planning process is decentralized; that is, if the central planning agency is limited in its scope and jurisdiction, and if each of the several executive agencies has its own planning staff with generous opportunities to experiment with its own policy innovations. The process need not be as loose-jointed and flexible as it is in the United States or even in the United Kingdom, but it would appear to be necessary to leave more elbow-room, more room for experiment and deviation, than is left when the planners' ideals of completeness and unity are made fully and tightly controlling over innovative tendencies of all members of the executive.

These considerations suggest the sharp limits which impinge upon institutions for policy innovation in the executive. Innovations in policy in democratic societies will continue to depend heavily upon the spurs applied to the government by external social and economic forces; and upon the stimuli provided by the dynamism, including the opportunism, of political parties; the criticism, even the irresponsibility, of legislators; the pressure, even if self-serving, of interest groups; the voices, even if strident and episodic, of the communication media;

and the zeal, including the fantastic, of individual "movers and shakers." For it is hardly wise, when considering the desirability of policy innovations, to overlook the fact that the executive, especially its permanent bureaucracy, has powerful built-in predispositions to prefer continuity over change, to modify precedents rather than replace them. If executive institutions charged with giving priority to policy innovations succeed only in making the executive agencies self-conscious about their hostility to innovation, they will have accomplished much.

Institutions for Procedural Innovations

The "O & M" (Organization and Methods) agency is the most highly developed model for institutionalizing procedural innovations in government. Ranging in scope from organization structure, work simplification, the use of technology in management, to incentive systems for managerial improvement, the organization and methods (or management) agency is widely regarded as the most effective source and spur for procedural innovations.

Innovations in procedure are the special but not the exclusive realm of the bureaucracy. The forces which serve as pressures for policy innovation rarely enter the field of procedural change. The political party is a general rather than a specific critic of procedures, although it will sometimes focus its fire upon a procedure which imposes inconvenience or cost upon a large or strategically important section of the electorate. The communication media will engage from time to time in an electric barrage upon some outmoded or over-elaborate procedure which has been brought to its attention, and will demand change. These two sources will not often frame a specific proposal for procedural change, leaving that task to others. Legislators, political executives and interest group leaders are more specific and more constant in their attention to procedural change, but their interest and competence have a limited range; they incline to be most interested and most influential when procedure is linked to policy change.

The main potential for procedural innovations, then, lies by default if not by choice in the bureaucracy itself. The bureaucrats have the information, the skills to devise procedural innovations, and the strategic position to carry them out. The difficulty is that most bureaucrats have a sharply limited enthusiasm for change, being devoted to the established rules and procedures. Their incentive systems reward conformity to precedent. The problem of securing procedural innovations thus becomes, first, a problem of building special institutions within the bureaucracy to take the lead in devising procedural changes and, second, to modify the incentive systems of the bureaucracy so that innovations are as honoured as is guarding the established modes of work.

The O and M Agency is the current commonsense solution to the first aspect of the problem. As with the planning agency in the field of policy innovation, the O and M function ought probably to be decentralized, for even O and M innovators are not immune from the temptation to verify, to standardize, to use stock solutions for unique procedural problems. Some competition among separate O and M staffs is a useful corrective to this tendency of the institutional innovators to become themselves guardians of the innovations they have installed and thus enemies of subsequent innovations.

Modifying bureaucratic incentive systems to encourage procedural innovations is a subtle and complex problem. No government appears to have developed an impressive model, although much lip-service is paid to the idea. The use of intra-bureaucratic competition, especially between specialists and generalists, is the most promising method -- yet for most governments this represents a massive innovation in itself, amounting to a radical change in the nature of the bureaucracy rather than simply a change in its incentive systems.

Procedural innovations do not develop easily. There are fewer sources to sponsor them than is the case with policy innovations, although this is not meant to suggest policy innovations are easier. Innovation, whether in policy or procedure, is a difficult accomplishment. That is why special efforts need to be made not only to give it institutional emphasis in agencies whose prime assignment is innovation but also to mobilize its support in the incentive systems of the political system generally and in those of the bureaucracy particularly.

Ad Hoc Agencies for Innovation

One of the most fruitful methods for securing innovation in several governments is the use of special study commissions or bodies of inquiry, usually appointed by the government and given terms of reference for their work, but sometimes self-appointed and self-limited in their concerns. The Royal Commissions in Great Britain and the Presidential Commissions in the United States are familiar examples. In both of these countries, commissions and committees of lesser status are also widely and frequently used. Their purpose is most often to develop proposed changes in public policy, but many are used to devise procedural innovations, and not infrequently they are a source of both types of innovation.

The virtue and the limitation of these bodies reside in the fact that they are ad hoc. Their virtue is that they bring "new blood" and new ideas to the task of innovation (for their members and staffs are usually "outsiders" recruited for their interest and competence, and so are free of the habits and restraints of the "insiders"), and that they have a sharply focused mission. Their limitation is that, even when

their use is widespread and frequent, they can influence only a restricted range of governmental activity; the need for innovation is appraised only in selected areas. For the purposes of innovation in identified high priority situations they are invaluable, but they can attend to only a small part of the governmental field.

The use of consultants, experts in policy or procedure, is a frequently used modification of, or supplement to, the use of commissions or committees. Their role has comparable virtues and limitations. They can be used more flexibly and more informally than the elaborate machinery of the commission, and experience demonstrates that they are an important source of innovations, both policy and procedural. They cannot, however, replace the permanent institutions (whether planning agencies or O & M agencies) for innovation.

General Observations

Innovation is seemingly the orphan of the political and governmental process, more honoured in rhetoric than in fact. No major participant in the process of politics and administration regards innovation as his prime assignment. Proposed innovations are often the weapons of strategy and tactics of the participants in their competition with each other, but these proposals are often the first to be expended when the final stages of bargaining between the competitors are reached. Symbolic innovation is not infrequently substituted for genuine change at this point. Even when this barrier is surmounted, the innovation may be eroded by the system's general resistance to change. Yet innovation is not a friendless orphan. The point is simply that those who would encourage innovation and those who would themselves be innovators need to be aware of how difficult the process of innovation is.

BUILDING SUPPORT FOR TRAINING

Lynton K. Caldwell

[From Improving the Public Service Through Training; prepared for the Agency for International Development, Washington 25, D.C., pp. 66-79.]

[This monograph explains clearly and simply the role of training in the improvement of public administration in the less developed countries. It is mainly concerned with describing the principles and concepts that are relevant to determining the training needs of these countries and for devising programs adequate to meet them. It is not a manual for trainers, but rather a guide to the general philosophy of training for public service improvement.]

The excerpts presented here discuss the roles of political leaders, high-level public officials, and the people generally in supporting effective training programs.]

Regardless of its necessity or importance, understanding and acceptance of training for the public service, except in such technical areas as engineering, law, and medicine, cannot be safely assumed. Support for training must be won throughout the organization, as it does not necessarily exist as a matter of course. Training-mindedness is an evidence of organizational vitality -- of a sense of direction and security among the persons making up the organization. Where people have identified their interests with those of the organization and where

These are excerpts from the monograph.

Lynton K. Caldwell is Director, Institute of Training for Public Service, Indiana University, Bloomington, Indiana.

they feel its development is conducive to their own security and well-being, much of the resistance to organizational training will be overcome and the necessary cooperation of all the components of the organization more readily obtained.

Maintaining High-Level Understanding and Support

Unless the purpose and necessity of training are understood at the highest levels of government, training efforts are likely to fall short of maximum effectiveness. The kind of training program that can be established depends upon top officials understanding their role in training and their concepts of administration. Lower level officials take their cues from the higher administrative levels. Unless training is taken seriously at the top of the government service, it will not be taken seriously elsewhere.

Fortunately, officials at the highest levels of government are usually among those most favorably disposed toward training. The responsibilities and point of vantage of top officials enable them more readily to obtain a comprehensive view of organizational needs than is ordinarily possible at lower administrative levels. The nature of their responsibilities involves their participation in the planning or approval of comprehensive training programs.

Such clear and concrete evidence of top-level support for training is essential in winning support at the intermediate levels of the administrative structure, where day-to-day operating pressures are most directly felt and where already overburdened officials may resist additional responsibilities. Commenting on the problem of obtaining support for training at intermediate levels, an experienced training director observes:

"...the most stubborn resistance comes from hard-headed operating officials at the intermediate (section, branch, division, and bureau) levels. They are beset with backlogs, manpower shortages, deadlines, and demands from top management to meet new objectives. They are caught between opposing forces -- on the one hand of wanting to practice modern management concepts such as training, and, on the other, wanting to incur the favor of top management."

When top management is carried on in a manner that reconciles the sometimes conflicting demands of good administrative practice and necessities of day-to-day operations, the possibility for effective training at lower management levels is greatly enhanced. Actions of top management will speak more clearly than words in communicating official policy and intent. For example, if governments endorse employee training and then indiscriminately slash departmental budget requests for training

purposes, an impression of insincerity is created. In such circumstances, the subordinate official will interpret official endorsements of training as lip service to an abstract virtue that he is not expected to take seriously in practice.

Policies are always strongest when supported by example, and the strongest evidence of high-level support for training is official participation in the planning, conduct, and evaluation of training programs. Leadership or participation of top officials in the actual conduct of training programs strengthens training in other ways. The top official has an opportunity through direct participation to arrive at an informed judgment about the problems and the effectiveness of the training. He is in a better position to understand and to evaluate reports by subordinate officials and training officers. He is better prepared than anyone else to make sure the training is directly and properly related to the on-going needs of government. Such participation makes it difficult for subordinate officials to say that they do not need the training that the heads of government have themselves experienced and declared to be beneficial.

High-level understanding and support are necessary not only to authorize and initiate training programs, but continue to be necessary to their continuing vitality and effectiveness. Maintaining the interest and involvement of high-level officials in training programs may require the assistance of organizational devices. For example, participation in public service training councils and in periodic inter-agency conferences on training, reviewing reports on the results of training, and attendance at training sessions may serve to keep high-level officials continually aware of training developments and problems.

Overcoming Organizational Resistance

To a limited but useful extent one may distinguish between barriers to training that are largely psychological and obstacles growing out of organizational relationships. In daily work, these two sets of factors are intermingled. Yet, it is necessary to identify them separately in order to learn how to cope with them.

The principal psychological barriers to training are indifference, over-confidence, self-sufficiency, cynicism, and suspicion. An additional factor that often permeates the others in some measure is fear.

Obstacles to training often differ at the upper, middle, and lower ranges of an administrative hierarchy. But one factor appears to be common to all administrative levels and may, indeed, be the principal psychological barrier to training. It is the human fear to admit inadequacy. For many people, admission that they need to improve, that they need to learn how to perform more effectively, threatens a "loss of

face." The human weakness called vanity may be as common at the lowest levels of supervision as it is at the very highest levels of politics and government. This universal factor in human behavior affords one of the strongest reasons for establishing training on a comprehensive and service-wide basis.

If top officials of government publicly show that they believe training necessary to their own personal effectiveness as well as indispensable to the development and growth of the organization, a substantial amount of this psychological resistance may disappear. Resistance of middle and higher level officials to training has in many instances been overcome by giving training a prestige character so that it raises the status of those who receive it. People at these higher levels more readily identify their interests with professional doctrines and political goals than do employees at lower levels of the public service. The degree of support that these doctrines and goals provide for developmental concepts may significantly affect attitudes towards training. Values that make for pride in achievement, prestige associated with distinguished accomplishment, and maintenance of the standards set by one's professional group are forces favorable to training receptivity. But, as we shall presently see, these professional values may also pose problems for meeting broad training objectives that go against immediate professional values.

At the lower levels of administrative organizations, there are different problems. Here, indifference to organizational purposes or to self-improvement, cynicism regarding the sincerity of training policies, and suspicion of the motives of the government or agency in offering training are principal deterring factors. One of the means of counteracting these psychological barriers is through personnel policies and actions that reward self-improvement. A system of promotion based solely on seniority does not do this. Unwarranted political favoritism and discrimination in employment are especially harmful to employee self-improvement. Establishment of an atmosphere encouraging to personnel development and achievement is a task of general administration. Where this atmosphere does not exist the establishment and support of training programs may help to create it, but the advantage of the training to the employee must be made clear.

Training implies changes in people and in their work. Unless these changes are understood as beneficial to the individual and to the organization the uncertainties that are associated with change may raise or fortify psychological barriers. Training that involves changes in work habits, that affects status relationships, that may break long-standing personal associations, or may result in a reduction of the working force is almost certain to encounter resistance. Among the people who are affected, understanding of the relationship between the training program

and the administrative changes contemplated is essential to the effectiveness of both. If organized resistance to training develops among employee groups, the training effort to that extent is defeated. It is therefore important for the administrative officials most concerned to make sure that the purpose and benefits of the training are understood by all those who will be affected. It is also necessary for them to have taken into account the consequences of the training, unintended as well as intended, to make sure that the results do not do more harm than good and that incidental bad effects can be avoided or overcome.

The foregoing remarks are not intended to suggest that psychological barriers to training are necessarily irrational or ill founded. They are often quite logical and may sometimes be justified. Adult learners have a legitimate complaint if subjected to training methods appropriate only for immature or inexperienced individuals. Their resistance to training that is nothing more than administrative "window dressing" is rational and may be commendable. But there are probably as many psychological forces working to encourage the employee in training efforts as there are to deter him.

The task of administration is to try to create conditions that will induce desirable motivations. Analyzing employee motivation is, however, a complex and uncertain business. We are as yet a long way from knowing all that needs to be known to be certain that attempts to create desirable employee attitudes will yield sought-for results. Enough is known today, however, to improve substantially the attitudes and morale prevailing throughout most systems of government.

In addition to psychological obstacles to training, there are barriers raised by the organizational structure of government itself. These barriers are not necessarily raised against training as such but are obstacles to a service-wide developmental approach.

Training efforts are sometimes handicapped by a departmental exclusiveness. Where the administrative subdivisions of government take a narrow and restrictive view of their functions, training tends to be utilized in a narrow and restrictive manner. Departmental exclusiveness makes it difficult for agencies with similar training problems to cooperate in training efforts, such as jointly sponsored training programs, participation by employees of one agency in the training programs of another agency, or exchange of training materials and equipment. Where training funds are allocated exclusively to departments and other administrative subdivisions of government and where decision as to the utilization of these funds is the sole responsibility of the department or agency concerned, tendencies toward exclusiveness or separatism in training matters are reinforced by administrative arrangements. There are advantages in allocating certain training funds to a central agency with authority to make grants to various departments and subdivisions where joint or cooperative training efforts are indicated.

Another organizational barrier to effective training in government is the sharp distinction sometimes drawn between professional groups, for example in law and medicine, and other government employment. A sense of professional pride and technical self-sufficiency among highly skilled employee groups may lead them to feel that they can and should provide their own training. Unless effective communication has been established with these groups and their cooperation enlisted, efforts of government training officers or administrators to involve their members in service-wide training activities may be received as an unwarranted intrusion.

Professional and technical groups may be strongly training-conscious with respect to their own occupational discipline, but resist involvement in training programs that include nonprofessional employees. This attitude defeats efforts to organize training along procedural or work group lines. It handicaps most types of training for the performance of administrative duties. Unfortunately, training specialists are seldom in the position to influence the training attitudes of organized medical, engineering, social welfare, educational or other strongly professionalized employee groups. These groups can be influenced primarily by their own leaders, but also to some extent by the very top officials of government. Unless cooperation among the leaders of these technical and professional groups can be obtained, it will be extremely difficult to overcome the psychological and organizational barriers to training that frequently prevail among these groups in the public service.

Employee associations and unions may also raise organizational barriers to training in which they have not been consulted. Employee unions may view government training efforts with jealousy and with suspicion that the intent of the training is to make the employee subservient to administrative policy -- to indoctrinate him with attitudes which will weaken his loyalty to the employee group. Where employee unions enjoy popular confidence and support, association of their leaders in government training efforts is necessary and may be helpful, particularly if representatives of these groups are able to contribute significantly to the design and conduct of training programs and are skilled in the art of analyzing group opinions and in communication. In some aspects of human relations, leaders of employee groups may be able to do the best job of training, and their example may help in persuading their followers to adopt a favorable attitude toward training.

It is important that the responsibilities of the various parties concerned in training efforts be clearly and fully defined. Organizational responsibilities and relationships that require clarity in the interest of cooperation are:

1. The responsibility of top-level administration for training throughout the public service.

2. The role of the central training agency with respect to the administrative subdivisions of the government and to departmental and local training units.
3. The relationship of departmental training units to the subdivisions or departments in which they are situated.
4. The relationship of professional, technical, and unionized groups to service-wide and departmental-wide training efforts.

People can cooperate most effectively when they understand why cooperation is needed and when they understand the means for making this cooperation effective. To explain and interpret training for the public service so as to spread the concept of personnel development throughout the organization is one of the most effective ways to overcome the barriers inadvertently raised against organizational coordination through training.

Interpreting the Public Interest in Training

It is evident that training is not everywhere accepted as either useful or necessary. Even where it is widely accepted it does not always follow that it is understood and accepted by political leaders or by influential elements of the general public. Therefore, support for government training efforts needs to be developed not only throughout the public service itself, but among legislatures, political parties, the press, and as widely as possible among the general public. One step in this direction is to tell the story of training accomplishment in a simple and direct manner -- with emphasis on the human-interest elements in constructive public service. Training programs should make provision for recognizing, recording, and reporting training accomplishments. This reporting should be done in such a way as to interpret and emphasize the public interest in effective training.

There are many ways of telling the public what training does and why it is important. Reports of training accomplishments and endorsements of training efforts can be included in the speeches of public officials. Awards to employees who have distinguished themselves as a result of training efforts afford another means of dramatizing the value of training. Among other means of interpreting the public interest in training are the involving of political party leaders and various public representatives in conferences or committees concerned with developing human resources and improving the public service.

News media can be used for interpreting training to the public if attention-catching incidents are skillfully used to carry the message. Training, in the abstract, will not interest many people; but dramatized examples of achievement may convince people of the value of training if

the relationship between training and achievement is made clear. Training of the American and Soviet astronauts offers an obvious and dramatic illustration. Few aspects of public service have this great a public appeal. But, the relationship between training and achievement is also evident in many of the more common activities of government and the possibilities of gaining public support for training through news media are seldom fully utilized.

Implicit in democracy, and necessary to all contemporary forms of government, is popular cooperation in the far-reaching processes of public administration. In every modern state, each citizen spends some significant percentage of his time as a working member of the machinery of government. The more obvious duties of serving on juries, filing tax returns, serving in security forces (civil or military), providing census data, and voting in elections could be extended many times over if one were to cumulate the special public duties of particular occupations and citizen groups. Training for public service in the broad sense includes everybody and it is more than a play upon words or a statement of the obvious to say that the public interest in training for the public service is inseparable from the public interest in the public service.

Copies of Improving the Public Service Through Training may be obtained from the Communications Resources Division, Agency for International Development, U.S. Department of State, Washington 25, D. C.

SOME RECENT BOOKS
ON DEVELOPMENT ADMINISTRATION

Maddick, Henry, Democracy, Decentralisation and Development; London, Asia Publishing House, 1963, xii and 305 pp.

This book was prepared under the auspices of the International Political Science Association at the request of the Public Administration Division of the United Nations Technical Assistance Administration, and is of prime importance to anyone responsible for, or interested in, the improvement of administration for development purposes. Written in non-technical terms and with a wealth of empirical data, it is a comprehensive and detailed analysis of the interrelationships among centralization and decentralization, coordination and innovation, control and initiative in administering a government concerned with accelerating the process of economic growth and social change. The author's purpose is pragmatic and not theoretical, and he offers many practical suggestions for operating a system of field agencies of the central government, for establishing and making effective the institutions of local government, for encouraging participation and initiative by the people themselves, and for harmonizing in other ways the central direction and coordination of the development effort with the decentralized responsibility required to generate development energies and resources at the local level.

The author, Lecturer in Public Administration at the University of Birmingham, devoted several years to the research and writing required for this book and was assisted by special studies prepared by eight political scientists. An extensive bibliography is included.

Swerdlow, Irving, ed., Development Administration: Concepts and Problems; Syracuse, N.Y., Syracuse University Press, 1963, xiv and 162 pp., US\$3.95.

Prepared for a Faculty Seminar at the Maxwell Graduate School of Citizenship and Public Affairs at Syracuse University, the papers in this volume deal with various aspects of public administration in the less developed countries. The problems discussed include the relationship between the structure of politics and government and the difficulties of improving the efficiency of public administration; the cultural and the social impediments to public service improvement; the economic understanding required of development administrators if their efforts are to be successful; and the relationship between the private sector and government administrators. Other papers analyze governmental organization and procedures in India and Pakistan, and the need for better planning and administration of the development planning process as illustrated by the experience of the Latin American countries under the Alliance for Progress.

Some of the authors accept the editor's identification of development administration as a distinctive area of public administration peculiar to African, Asian and Latin American countries seeking deliberately to accelerate their economic growth and social transformation. While conceding that the role of government in developing countries differs from that in developed nations, other writers maintain that the principles of sound and effective administration are generally relevant to all types of countries and differ in the ways in which they may have to be adapted to meet the needs and limitations of particular situations.

Braibanti, Ralph and Joseph J. Spengler, eds.,
Administration and Economic Development in India;
Duke University Commonwealth-Studies Center, Durham, N.C.,
Duke University Press, 1963, vi and 312 pp., US\$7.50.

This book contains the papers presented at the Seminar of the Commonwealth-Studies Center of Duke University, as well as additional papers prepared subsequently. Focused on India, these papers deal with various aspects of the relationships between government, administration and leadership, on the one hand, and economic development and social change, on the other hand. The book contains a great deal of useful empirical data as well as important interpretive analysis and evaluation of Indian development and of administrative policies and programs.

Heady, Ferrel and Sybil L. Stokes, eds.,
Papers in Comparative Public Administration;
published with the cooperation and assistance of
the American Society for Public Administration
by the Institute of Public Administration of
the University of Michigan, Ann Arbor, Michigan,
1962, vii and 243 pp., US\$4.50.

The essays in this book were prepared for the 1961 annual meeting of the American Political Science Association, and represent an effort to formulate various hypotheses and theoretical models designed primarily to illuminate the similarities and differences in the governmental processes of different types of less developed and developed countries.

Hsueh, S. S., ed., Public Administration in South and Southeast Asia; Brussels, International Institute of Administrative Sciences, 256 pp., US\$6.00.

Each chapter of this book is concerned with a different country in South and Southeast Asia, and describes in detail the origins, organization, methods, staffing and personnel policies, and other aspects of government administration. A concluding chapter deals with regional cooperation for public administration improvement by these countries as a group.

Spitz, Alan A. and Edward W. Weidner, comps.,
Development Administration: An Annotated Bibliography; Honolulu, Hawaii, East-West Center Press, xi and 116 pp., US\$3.50.

This is a selective, annotated bibliography of materials in periodicals published in English and dealing with the administration of economic and social development in the less developed countries. It contains materials published between 1945 and 1960.

DEVELOPMENT PLANNING IN AGRICULTURE

NATIONAL DEVELOPMENT PLANNING AND AGRICULTURAL PLANNING

Marion Clawson

[From "General Review of Overall National Planning in Agriculture," a paper presented at the Rehovoth Conference on Comprehensive Planning of Agriculture in Developing Countries, held at the Weizmann Institute of Science in Rehovoth, Israel, from August 19-29, 1963.]

This is
a reprint
of most of
the paper.

The planning of agricultural development in the developing countries is at least as difficult as the development process itself. Wise planning, which can really serve as the basis for action, must seek to foresee in advance as accurately as possible every relevant factor. It is not enough to consider some relevant factors, and ignore others. Unless all can be foreseen with acceptable accuracy, the overall result may be as misleading as no plans at all. Complete accuracy is, of course, impossible, and a country should not refuse to plan because perfection is unattainable; yet planning must be taken as an extremely important matter. In the development process, both the government administrator and the farmer may make adjustments as the program unfolds, thus correcting for earlier errors or making allowance for unforeseen circumstances. But the planner is denied this opportunity, when he outlines a long-range agricultural

Marion Clawson is Director,
Land Use and Management Program,
Resources for the Future, Inc.,
Washington, D. C.

plan for his country. New plans can be made at intervals, of course; yet each plan must be sound in and of itself, if it is to serve as the basis of national actions. Moreover, the developing countries, like the poor farmer, cannot afford to make costly errors; they lack the margin of risk capital to gamble on uncertain plans.

Agricultural development in a developing country includes many parts -- physical, social, economic, political, and others; and agricultural planning must be equally broad, as we shall try to point out later. The agricultural specialist is often needed, yet rarely can the judgments of the specialist be accepted without reference to a wider range of factual and policy considerations. The specialist who thinks all the answers lie within his field of knowledge is as dangerous as the farmer who thinks there is no knowledge but that which comes from local tradition.

National Goals

The fundamental necessity for sound agricultural planning, and the most difficult of all aspects to acquire reliable knowledge about, is a clear understanding of national goals. What kind of society do the leaders and the citizenry of the nation really want? How many people must we plan for, and where will they live -- in city or on farms, and in which regions? How large a national income must we -- can we, realistically -- plan for, and how shall it be distributed among our people? What is the price, in real terms, of these goals? How far, and in what ways, must our existing society and culture be changed, if we are to achieve these goals? Are our leaders, our farmers, our men of wealth, our people generally, prepared to pay the price of achieving these national goals?

These are extremely difficult but unavoidable questions. One cannot achieve much higher incomes, with all that this implies in terms of application of modern science to agriculture, and at the same time leave unchanged the social and political structure of agriculture and of the nation generally. The same processes by which agricultural output is increased greatly and rural welfare improved will almost certainly mean the destruction of the traditional custom-bound rural society. The role of the family, the relation of sons to fathers, the social hierarchy of the village, the roles of moneylender and landlord, the political sensitivity and activity of farmers -- all these, and many other aspects of existing rural societies will almost certainly undergo major change as agricultural development takes place. It is idle to ignore such factors; agricultural plans which assume economic development and increased output, but which assume these other factors can remain unchanged, are little more than sophisticated paper-doll cutting. The basic consideration to all comprehensive agricultural planning is to realize how large is its scope, how far-reaching are its implications.

These problems are the more difficult because, in a democratic society, we expect people to reach decisions on these matters, which are in reality changes in themselves and in their basic patterns of living. We expect planners, administrators, and farmers to undertake actions which will have the effect of changing the whole economic and social structure of their lives; and we expect them to form rational judgments on the kinds of changes they want or will tolerate in themselves and their methods of living. It is as though we asked a young man, with no knowledge of modern universities, to outline for himself a course of instruction which would make him into an advanced professional worker in some field. He would find that he not merely acquired specific information in the process of his training, but that his methods of thinking, his goals, and his very nature would change.

The general planner must also raise the question: are the people of a country willing to pay the price inevitable in achievement of the national goals they set for themselves? The costs of economic growth are great, and take many forms -- labor, privation, personal adaptation to unfamiliar circumstances, and many others. The fact is that economic growth in most of the developed countries was achieved only by considerable hardship, by accepting privation during a development period in order to accumulate capital and knowledge for improved living conditions in later generations. In our enthusiasm and determination, let us not mislead ourselves or the people in low income countries into thinking that agricultural and other economic development is easy. Technical assistance and economic aid can perhaps smooth the path and speed up the process, but most of the costs will be borne by the country concerned.

Agricultural development in any developing country must proceed only within the framework of these national goals and decisions. For one thing, in most such countries, the overwhelming proportion of the total population is agricultural; the national goals are agricultural goals, and the agricultural goals are national goals, to a very great extent. But, even if this were not true, specific agricultural plans can be soundly made only within a recognized national framework. If a country expects to become heavily urban and industrialized within the next generation, the size and kinds of farms to be established by land reform would be very different than would be the case if we assume a continuation of most workers in agriculture, for instance; or the economic rationale of new irrigation projects depends to a large extent upon the need to provide employment opportunity for the population expected to remain within agriculture.

I hazard the judgment that more agricultural planning has gone astray because of misunderstanding as to national goals and national developments, than has gone astray because of factors within agriculture itself. I speak from personal experience; if time permitted, I

could confess my own errors in these directions. The agricultural specialist is often less competent when he tries to understand the world outside of agriculture, and he may plan for circumstances that will no longer exist when his agricultural plans have borne fruit.

Agricultural Planning and National Planning

Even when national goals are explicit for the agricultural planner, it is still necessary to articulate carefully the agricultural plans with the general economic plans. Population and income projections contained in national economic plans become major basic data for agricultural plans. They go far toward determining domestic demand for agricultural commodities, and to a large degree set the framework for the magnitude of the job for agriculture. Consumers, who are free to make choices, will determine the quantities of agricultural commodities consumed and the prices paid for them, unless a country is to impose a system of state-administered prices or of rationing. These in turn set limits to agricultural production, unless the country is prepared to subsidize agricultural production heavily. Most developing countries are financially unable to do this.

Employment possibilities in the towns also greatly affect agriculture. In most developing countries, there is today a surplus of manpower in agriculture, in the sense that the same volume of agricultural output could be produced with a much smaller labor supply, if necessary. Moreover, farm people traditionally produce more children than are needed to take the places of the parents, and with rising health standards in rural areas the surplus there will become greater. If the non-farm economy of the country can absorb this rural surplus population, that provides one framework for agriculture; on the other hand, if sound national policy requires employing most of the increased population within the rural area, this requires a very different kind of agricultural plan.

Professor Dantwala, in his paper for this Conference, has shown that in largely agricultural countries such as India, it will probably be necessary for the next generation or two for agriculture to provide a means of living to a considerably increased total population. Urban employment can hardly increase fast enough in large agricultural countries to absorb the full natural population increase from the rural areas.

Another important sphere for integration of agricultural and total national planning is in the field of savings and capital. Developing countries are, with few exceptions, short of capital, and the rate of saving is usually low, especially in absolute terms. Economic development of all kinds requires capital; agriculture must compete with industry and urban uses of capital. The comparative rate of return for

capital may be one important factor in the allocation of capital between agriculture and rival claimants, but in many countries the institutions for funnelling capital into agriculture are very poor indeed. However, some kinds of farm capital can be created with very little or no outside capital, wholly from available rural labor. This applies to many kinds of land clearing, for instance, and often to many other kinds of farm improvements as well. Whatever may be the situation in a country, the supply of and demand for capital in agriculture and in other sectors of the economy are basic considerations for the agricultural planner.

As a matter of fact, in most developing countries agriculture must accumulate capital to provide the means of speeding industrial and other urban development. Farmers may save willingly, but some means must be created in most countries for accumulating their savings and transferring them to other economic sectors. More commonly, farmers must be forced to save through taxation, and the funds so obtained by government channelled into economic development elsewhere. Taxation of traditional agriculture is notoriously difficult to manage. A country may direct some capital into agriculture, to speed up agricultural development, and at the same time tax away a good bit of the added income to provide the capital needed elsewhere. As we understand it, this in effect is what Japan did in the latter 19th century.

Savings from agriculture, wherever they are to be invested, nearly always call for new institutions or for new methods of administration.

The availability of transport is another factor which affects not only agriculture but the remainder of the national economy as well. In most developing countries, substantial parts of the nation lack means of transport. Under these conditions, agriculture at best can only produce subsistence for the people living on the land. No matter how great their potential productive capacity, they cannot produce anything for market because they cannot reach the market. Under these circumstances, expenditures of labor and capital for transport may be highly productive, even when capital is scarce. Improved transport may be important for social and political reasons as well. In somewhat more advanced countries, some means of transport may exist but they may be so slow or so costly as to prohibit the movement of most kinds of agricultural produce. One consequence of poor transport is the necessity for each locality to produce virtually all of every kind of food it consumes; regional specialization is impossible. This may be especially serious in a large and geographically diverse country such as India. No small part of the great gains in agricultural output in the United States over the past 50 years or more has resulted from the high degree of regional agricultural specialization which our transport has made possible. By transport, I mean much more than the mere movement of non-perishable bulk goods; I include also refrigeration

for those commodities requiring it, and all other specialized services which are needed for movement of many kinds of agricultural produce.

A more productive agriculture requires many goods and services which must be provided by the non-agricultural sectors of the economy -- fertilizers, insecticides, packaging materials, machinery, and numerous other products. Manufacture of these products and their provision to the rural areas in turn provide profitable employment for many non-agricultural people in the more highly developed countries. The requirements of agriculture for these goods and services must be matched by a capability to produce them in the necessary quality and quantity, and to provide them at the necessary time and place. Here, again, is a sphere in which agricultural and urban economic planning must proceed hand in hand; it is wasteful to devote either too much or too little effort to the production of these necessary supporting services for agriculture.

In many developing countries, agriculture must provide a major part of the foreign exchange earnings, but at the same time cannot rely heavily upon imported goods and machinery for agricultural use. This is true sometimes because agriculture is the chief economic activity in the country, but it is also true because sometimes the developing countries find the greatest difficulty in producing industrial products which can compete in export markets. Some developing countries obtain large revenues from export of mineral products, too. However, with low current incomes, extremely limited national capital, and a desire to raise income and living conditions, some developing countries have little choice but to seek agricultural exports. During the past decade, the terms of trade for these commodities have generally trended adversely for the exporting countries, thereby making more difficult their already serious foreign exchange problem. Viewed in a longer perspective, terms of trade for agricultural commodities perhaps do not show such adverse trends. At the minimum, the relation between agricultural and other exports and imports is a matter of serious concern both to the agricultural planner and to the general economic planner in the developing country.

Broad Considerations in Agricultural Planning

A truly comprehensive national plan for agriculture in any country must meet at least three broad tests: it must be physically feasible, economically efficient, and culturally acceptable.

Agriculture is highly dependent upon natural resource considerations -- perhaps more so than any economic activities other than mining, forestry, and fishing. The kind of climate, the soils, the native vegetation, the insect and other hazards, and other natural factors set absolute or relative limits to the kinds and amounts of agricultural output. In a semi-arid climate, grazing is often the only practical

form of agriculture, except where available water supplies permit, irrigation. Moreover, the number of animals that can be grazed is sharply limited, in most cases; an attempt to graze larger numbers will usually reduce livestock output and damage the productive capacity of the land itself. In those developing countries where a bush rotation is followed, under which a tract is cleared and burned and farmed for a few years and then abandoned to brush again for a much longer period, there are sharp limits to the frequency with which land can be farmed if ruinous erosion is to be avoided. If irrigation is to be practiced, then dangers of salt accumulations in the soil exist nearly everywhere. In these and in scores of other ways, natural physical limitations restrict or greatly condition the kind of agriculture physically feasible.

Agricultural planning must involve agricultural specialists who understand the relevant physical conditions of their country. Too often in the past, agricultural development plans have been drawn by economists and others who understood the natural relationships too imperfectly. On the other hand, agricultural specialists are often in scarce supply in developing countries, and many specialists are too specialized to be very helpful in general planning for agriculture. Nevertheless, sound agricultural plans must be firmly grounded on the natural resources of the country.

If physical circumstances limit what can be done at all, then economic considerations further limit what can be done profitably. In many countries, it may be possible to build huge reservoirs and canals to irrigate new land, and thus increase agricultural output; but are the prospective returns adequate to repay the prospective costs? Or, jungle may be cleared for farming; again, will returns repay costs? Or, railroads might be constructed into back country, thereby opening it up for agricultural development; but does the prospective volume of freight justify the investment? Applications of fertilizer might increase crop yields greatly, but will the returns more than offset the costs? Innumerable other examples could be cited of economic feasibility questions for agriculture. We may be sure that traditional farmers will ask such questions, perhaps not quite so clearly and explicitly; moreover, in practice most traditional farmers will hesitate to adopt new practices even when it would pay to do so. If agricultural programs are to be carried out by farmers acting of their own free will, they must be convinced of the economic feasibility of the proposed new programs. But, the national government also must consider the matter of economic efficiency very carefully. As we have noted, most developing countries lack capital, and their central governments are rarely in a position to undergo continuing subsidies or losses.

The sharpest kind of economic analysis should be applied to agricultural plans for developing countries. Such an analysis can serve at least three different kinds of functions: it can help eliminate

economically unsound proposals; it can help choose the more desirable among various economically sound propositions; and it can provide the basis and the conviction for going ahead with the economically most efficient suggestions. Economic analysis all too often is forced into the role of opposing unsound or overly ambitious development proposals, but its role is basically constructive as well as negative.

Physical feasibility and economic efficiency are not enough; agricultural programs must be culturally acceptable as well. In perhaps no country in the world do farmers completely maximize their income; objectives other than income maximization often condition if not determine their production and marketing programs. In many grazing areas of Africa, wealth and social stature are measured by numbers of cattle or other livestock owned; output of livestock products, and still less their sales, are not the determining criterion for agricultural planning under these circumstances. In India, there are vastly more cattle than any consideration of maximum income would dictate. Moslem countries refuse to grow pigs for food. Some countries have certain forms of land tenure which they are most reluctant to give up. Some countries are willing to undertake certain government programs which other countries are unwilling to have assumed by the governments.

This matter of cultural acceptability must be put in proper perspective. On the one hand, a program which flies in the face of deep-seated prejudices, customs or beliefs will surely encounter severe opposition and is likely to fail. On the other hand, the culture of developing countries has sometimes changed greatly in the past, and certainly is in process of comparatively rapid change today. People generally, and traditional farmers in particular, may resist change; yet change has been imposed or induced throughout human history. One result, if not one objective, of most comprehensive agricultural plans is cultural change. It is precisely because the old culture has not produced the volume and variety of agricultural output which is desired that the need for comprehensive agricultural planning now arises. Planners within the developing countries are in a difficult position; products of that culture, they are conditioned by it, often more deeply than they realize; and yet they are often the directing force for major change.

The limitations of cultural acceptability are often stressed by anthropologists and others, and they are very real. Yet both physical feasibility and economic efficiency modify cultural acceptability, particularly in the long run. The tribe grazing livestock for sheer numbers to impress their fellow men experiences a traumatic cultural shock when prolonged drought kills most of their livestock; or hill dwellers who have refused to live in lowlands may be forced to adopt new attitudes when the pressure of increasing population and declining crop area because of accelerated erosion forces some change for sheer

survival. A farmer may hold to his traditions in the face of modest income losses, but is he prepared to accept major continuing losses in income in order to adhere to the customs of his fathers?

These considerations of physical feasibility, economic efficiency, and cultural acceptability set major limits for truly comprehensive planning for agriculture. Such planning must be broadly based, with all major conditioning factors included; yet it must not become so broad and general that it never comes to a practical program. Specialists from many fields must be involved, yet some general planner must integrate specialized views and experiences into a rational and well-integrated whole, even if this involves some overriding of the specialists.

Some Specific Factors in Agricultural Planning

One major requirement for agricultural development is to provide adequate motivation for change to farm people. This may seem at first thought to be a problem only in democracies, where individual farmers have freedom to choose what they will grow, how they will do it, what they will sell, and the like; but it is also a problem in a totalitarian society, as the experience of both Russia and China clearly shows. Farming is carried on under such geographically dispersed circumstances, and under such a wide variety of arrangements and decisions from day to day, that no central authority can fully control the actions of a nation's farmers, no matter how hard it tries. Rather than the authoritarian route, a more efficient approach, as well as one more compatible with democratic ideals, is to enlist the cooperation and full participation of the farmer in the achievement of the national goals. Favorable price relationships, adequate supplies of production materials and of credit, good marketing arrangements, and many other factors encourage farmers to produce and market more. So do tenure arrangements which permit the farmer to retain the fruits of his labor and his ingenuity. In most countries, this means land ownership for the farmer, but other arrangements may reach the same goal.

Above and beyond the material rewards, however, farmers respond to other kinds of incentives. Perhaps the most important of all is a sense of participation. Planning should be with farmers, not for them. Plans handed down from on high, no matter how technically sound, will never command the crucial local support that farmers will give to programs in which they have had a part. National plans are needed and provide a broad framework within which local plans must function; but local plans should be developed locally, with high degrees of farmer participation, adapted to local conditions, and using the most appropriate means of reaching broad goals.

Great importance attaches to effective facilitating institutions for agriculture. A highly self-sufficient agriculture rarely produces much marketable surplus; modern agriculture requires many services and goods from other sectors of the economy. The means whereby these services are channeled into agriculture is usually all-important. Agriculture requires credit, if it is to increase its output; but credit is both inadequate in amount and too costly in most developing countries. The factors which make inadequate the credit available to farmers -- limited total national capital and the lack of efficient rural credit institutions -- cannot be remedied overnight in many countries. Yet a beginning must be made. Under nearly all circumstances, it is possible to rally some local savings, even if extremely small; these have importance far beyond their monetary sum. By encouraging and teaching farmers to save and to manage savings, the ability to use capital wisely is created. Small local savings may have to be augmented by loaned capital from the central government, but the latter alone can easily be wasted unless the proper attitudes toward its use have been built up.

The supply of necessary production materials, such as fertilizers, is also highly important. The range of production materials continuously widens as agriculture becomes more advanced technologically. Sometimes relatively inexpensive materials can yield very great results, and their absence can be disastrous. This may be true of trace element fertilizers, or of some insecticides, or of improved seeds. Selection of improved local strains or varieties of major crops, followed by crop breeding at specialized experiment or seed stations, can often raise the level of agricultural output greatly at very low monetary cost.

The need for marketing facilities is obvious, and often very great. Attention is often focused on the physical aspects of agricultural marketing -- warehouses, grain elevators, meat packing plants, and the like. These are indeed important, but the institutional side of marketing may be equally important. An efficient market, in the sense of a place where buyers and sellers meet to transfer goods from one to the other, is just as useful to farmers as are improved physical facilities, and may be much less costly to provide. Both are necessary. In many countries, it may be highly productive to develop other institutional aspects of marketing -- legal instruments for buying and selling, standardized weights and measures, official grades of various commodities, etc.

The need for educational help and technical assistance is also great in most countries. The old traditional ways may have been the best in their day, but they may no longer be the best even for the old crops, and may be totally inadequate for new crops or new varieties of old crops. It is significant that many countries have found it easier to persuade their farmers to adopt the most modern practices on wholly new crops, than has been true for the older crops where traditions were more firmly established. Farmers in tradition-bound agriculture are

slow to change, and educational efforts must be carefully planned to be effective. Needless to say, the technicians must first of all know what is indeed better and more efficient in a particular situation, before they dare try to persuade farmers to change their old ways. This may require much research and experimentation, either to develop wholly new ways or to test and adapt methods developed in other countries. But one should not scorn trying to learn from the best farmers in an area, and carrying the results of their knowledge to other farmers. Even in a tradition-bound agriculture, farmers do differ, and some have found by trial and error methods which are superior to the general practice.

By far the most important consideration in this matter of helping farmers increase their output is a careful articulation of all the various programs. There is nothing to be gained by giving farmers new fertilizer unless one also shows them how to use it properly, or little gain from fertilizer on old crop varieties which cannot respond to it, or no value in producing more if it cannot be marketed satisfactorily--the list of possible discrepancies could be stretched on and on. It is in this articulation of the manifold elements of modern agriculture that comprehensive planning is most important, and can be most helpful. As we have noted, agricultural specialists are essential, but they must in some way be coordinated so that the various specialized approaches complement one another.

A few final points may be made. Agricultural production must be aimed at the market, domestic and export. The quantities demanded and the prices that will be paid are basic to planning of the nation's agriculture, and also to the planning of the individual farmer. The best possible analyses of market prospects are surely greatly to be desired. National agricultural output is the sum of the output of all the individual farms in the country; the national decisions are the sum of the individual decisions. The agricultural planner must consider both the overall totals and the individual farm programs; in the economist's language, he must use both a macro and a micro economic approach. It is no use to say that national income would be increased if less coffee were produced in the country, when coffee is the most profitable crop to the individual farmer even though its price be low; or there is nothing gained by advocating an increased consumption of dairy products in a country if the individual farmers find it unprofitable to produce such products at the prices consumers are willing to pay. Planning at national, regional, village, and farm levels must be carefully articulated; this is partly the job of the national agricultural planner, but he must enlist the help of leaders at every level, and of the farmers themselves.

REGIONAL AGRICULTURAL DEVELOPMENT
AS THE MEANS FOR IMPLEMENTING NATIONAL
AGRICULTURAL DEVELOPMENT PLANNING

Raanan Weitz and Yehuda Landau

[From "Comprehensive Agricultural Planning on the National, Regional and Individual Farm Levels," a paper presented at the Rehovoth Conference on Comprehensive Planning of Agriculture in Developing Countries, held at the Weizmann Institute of Science in Rehovoth, Israel, From August 19-29, 1963.]

These are
excerpts
from the
paper.

Agricultural development, more than the development of any other sector of a country's economy, is linked to a complicated system of non-economic factors. Agriculture is not only a means of earning a livelihood, but also a way of life. The basic production unit -- the individual farm -- is part of the special social structure of the village community and society. Economic development is not feasible if this structure cannot adapt itself to technological and organizational changes. Those who wish to plan agricultural development, at whatever the level, have to be prepared to deal not only with economic and technical problems, but also with social, institutional and organizational problems. The mutual relations existing among these different factors, and

Raanan Weitz is Chairman of the National and University Institute of Agriculture, Rehovoth, and Head of its Settlement Study Center. He is also Director of the Land Settlement Department of the Jewish Agency, Jerusalem.

Yehuda Landau is Coordinator of the Settlement Study Center, National and University Institute of Agriculture, Rehovoth.

their reciprocal effects, must be understood. The importance of the human factor in agricultural development, and the necessity of taking it into account in every development plan, are not always fully recognized and appreciated. For these reasons, agricultural development planning has a special structure of its own, which is different from that of any other economic sector.

The Aim and Structure of Comprehensive Agricultural Planning

The aim of agricultural planning is to establish (in accordance with general national policy) favorable conditions for the optimal economic and social development of the rural sector without undermining the fundamentals of rural society, especially those which derive their strength from long-lived traditions.

The factors that affect agricultural planning on a national level are those which, by their nature, are directed at creating continuous sociological, agrotechnical and organizational changes. These are changes which cannot be executed unless the farmer accepts them. Because the nation's agricultural output is the total production of the farm units, national agricultural macro-planning must be connected with and completely adapted to the micro-planning of the individual farm units. The agricultural planner must find suitable criteria for binding national planning with the production processes in the individual farms, not only from the economic point of view, but also -- and sometimes chiefly -- from the other standpoints already mentioned.

The determination of these criteria is feasible by studying various forecasts and choosing suitable ways and means for directing the predicted course of events to specific goals. For this purpose, the planner must obtain data for, analyze and formulate three planning systems.

The first system is the macro-plan that deals with the distribution of the basic means of production and their redirection to the most appropriate alternative under the existing conditions in the country. This system consists of four main parts which can be summarized as follows:

- a. Determination of the predicted development for the entire national economy, so that the plans for the agricultural sector can be smoothly and appropriately integrated. The planner must know the estimated population increase, the rate of the annual increases in the national product, per capita income and consumption, and especially, the forecast of industrial development in comparison with that of agricultural development.

b. Determination of the factors affecting demand for agricultural products: the estimated increase in the volume of demand on the local market, the export possibilities, and the forecast of prices for agricultural products.

c. Determination of the basic factors affecting agricultural supply, including a survey of natural conditions -- soil, water, climate -- that determine agricultural development; and evaluation of the progress in agricultural know-how. This evaluation should cover the possibilities for introduction of new agrotechnical methods, increases in yield, and increases in labor output.

d. Determination of the most appropriate alternative for the structure and composition of the different branches, in view of the above, and in agreement with the general development policy of the country. This matter is especially important in an accelerated, dynamic and developing economy, since only prior recognition of the fundamental changes which might occur as a result of this development can prevent serious crises in rural areas.

The second system is the micro-plan, aimed at distributing the means of production among the farming units in such a way that the total farm production will be in accordance with the total overall production goals. This system is based on models of farm types and is directed by fundamental principles stemming from socio-political considerations more than from economic factors. In Israel, one of these principles is that the additional means of production should be distributed so that the farmer's income will not lag behind the anticipated changes in the income of the average worker in the economy.

In reality, we have found that there is a divergence between the objectives of agricultural planning on the national level and the actual possibilities of carrying them out on individual farms. In order to attain these national goals, the activities of the majority of the farmers have to be considered within a certain framework. Recognition of this necessity results in far-reaching conclusions concerning the organization of agricultural planning and the relationships between policy-makers, planning authorities, implementing authorities and farmers. Close connections should, therefore, be formed between planning and policy on the national level, and the teams dealing with the problems and coming into daily contact with the farmers.

Thus arises the need for a third comprehensive system that will link the first two systems and draw the practical conclusions that are inferred in this process. The third system should not only direct agricultural development in the village, but also determine the ways and means of incorporating agriculture, industry and services within the rural regions in order to maintain a balanced relationship between town

and country. Such an integration can only be attained if it finds expression not only on the economic plane, but also the social, organizational, and even physical planes. This is the system of regional planning.

Regional Planning as a Connective Link

Agricultural planning is a dynamic and continuous process that is linked to and determined by its implementation. Observations made during the implementation period provide the necessary data for evaluating the connection between the various factors, in particular the unpredictable, that affect development. There thus arises the necessity for a "feed-back" mechanism, built into the planning and implementation system for agricultural and rural development. We are, therefore, of the opinion that the accepted conception of the agricultural planning system should be changed and in future be based on the following continuous and consecutive five stages:

1. Determining the objective: The development aims must be determined and clearly defined.
2. Collection of data: The data necessary for determining the decisive factors in the macro- and micro-plans already described.
3. Devising the plan: A survey of basic data necessary for a forecast of the development of the basic factors that affect the macro- and micro-plans; determination of a policy likely to shape the course of this forecast in the direction of the objective; and lastly, a study of the general integration of the two systems and drawing the conclusions regarding the development of rural areas in all aspects.
4. Planning and preparation for implementation: Organization of the means and formulation of the rules by which the development authority will operate when the plan is instituted.
5. Follow-up of the implementation: Continuous drawing of conclusions from the actual development process in regard to the initial aims and aptness of the plan. The implementation process can show the development authorities where changes are necessary in the aims or any stage of the plan. This is the "feed-back" mechanism that is built into all stages of the development process.

Experience in Israel has proved that the link among policy-makers, planners, agricultural experts and implementors must be close and continuous, not only at the top of the hierarchy but at all levels down to the regional office that comes into daily contact with the individual for whom the development project is planned. It must not be forgotten that the planning is carried out at three levels by various people with

different authorities, who use different analytical methods. All of them should be connected in a two-way stream of information and coordination of activities. It is well known that one cannot coordinate those who do not want to be coordinated. The first drafts of a plan from the national level down to its roots in the various villages, must go back and forth along the ladder of different planning levels. Even after the framework of a plan has been outlined, it should be regarded only as a guide for thought and as a starting point for the dynamic process. The entire system must be viable and capable of introducing necessary changes into the plan while it is being implemented.

Since the Second World War, considerable progress has been made in using mathematical techniques for the analysis of economic development processes. This method is mainly utilized in developed countries, on a national level. We should not forget that these techniques do not take into account qualitative factors, the importance of which can sometimes be decisive to agricultural development. Therefore, the chief problem of linking the various factors (quantitative and qualitative) in the agricultural development process can only be solved at the regional level. Planning on the regional level can serve as the functional unit which coordinates the developments on the farm level with the national policy.

According to this concept, the burden of agricultural planning and rural development is at the regional level.

The Character, Functioning and Administration of the Development Region

An agricultural development region can be defined in many different ways. It can be given a geographical definition (e.g., a river basin, a certain valley, etc.), a demographical definition (e.g., the area inhabited by a certain tribe), or an administrative definition (e.g., a county, a district, etc.). Recent suggestions have been made to define it on a geo-functional basis, such as the sphere of influence of a specific urban center. In our opinion, none of these definitions truly represents the idea of a "development area" as we see and refer to it here. The most appropriate definition is functional, which states that the development region covers the area in which the effects of a certain development process are felt and within which certain goals can best be achieved and their implementation best planned. As the development process becomes more complicated and expands, the regional boundaries become less clear and less accurately defined.

The question remains as to the most desirable size of a development region of the suggested type. We arrived at the conclusion that a region which can serve as a basis for agricultural planning and rural development is that which contains villages that are linked to a single urban center. This link may be direct or by means of service centers,

like the regional plan of the Lakhish region in Israel. Such a region is just large enough to prevent undue fragmentation of the agricultural planning on a national level, and sufficiently small to enable use of the "feed-back" mechanism and to permit differentiation of the specific factors and conditions of the region itself. In a region larger than that suggested, the comprehensive planning process cannot be implemented according to the concepts previously described.

The national agricultural plan should therefore be composed of integrated regional plans. The national planning authority should define the framework of the various regions and determine the general development aims for each and every region. After taking into account the specific advantages, and the economic-social-organizational-physical characteristics of each region, it is necessary to assign priority to the different regions, so that the results will dovetail with the overall national development goals.

We would like to emphasize that the success of all agricultural planning and rural development depends mainly on the producer -- that is, the farmer. The farmer's attitude to the development authority is usually formed by the rural communities. They have their internal leadership and their special social ties, and therefore a connective link must be formed between the development authority and local leadership of each of the communities on which the pyramid of agricultural development is based. This is the task of the regional development team.

Members of the regional development team must live within the area. The first condition for implementing agricultural planning and rural development is laying the ground in the villages for proper functioning by the development team. This team must include all the professionals engaged in the process, i.e., economists, sociologists, agronomists and administrators. The man at the head of the team should determine policy, be an expert in comprehensive rural planning -- with both theoretical and practical training in the subject -- and be capable of seeing each process as part of the entity. These team leaders, or comprehensive planners, are new in the rural development arena and have evolved from first-hand experience in action. The time has come to introduce special courses in the university curriculum to train experts for such jobs.

The role of the development team is not only the implementation and operation of the development plan. It must also include carrying the burden and performing the duties of leadership, activating the region and influencing the farmers for whom the plan is developed. In order to carry out its work faithfully, the team must not only live and integrate itself within the development region, but also use the methods of communication, extension and education that will bridge the gap with the farmers. This aspect demands much study and directed research;

experience in Israel and in other countries has already taught us that it is of decisive importance with regard to the results.

Lastly, we must strongly emphasize the importance of the authority given the leader of the team. The structure of planning and implementation of agricultural development is based on two fundamental aspects. The first is that the plan and its implementation must proceed hand in hand, and the second is that this process is at present feasible only within the limits of the regional area. Agricultural planning and rural development on the national level must, therefore, be based on regional units with a large measure of independence regarding changes in the plan and its implementation.

The spheres of activity of the regional development team fall into different fields that are generally under the jurisdiction of different government offices. The head of the development team, therefore, must have authority over representatives of the various government offices participating in the development process. This leads to a basic conflict between the administrative arrangements necessary for regional development, and the administrative systems existing in the majority of countries. This conflict is especially marked in the newly developing countries, in which authority is centralized both for historical reasons and for lack of trained personnel. This situation can only be overcome by differentiating between the regional development authority and the normal service authorities of the various government offices. The regional development authority must have various means -- financial and other -- in its own hands in order to implement the development plan. The plan has to be operated in a decentralized way by the regional directors and their development teams.

THE SIGNIFICANCE OF POPULATION GROWTH
FOR DEVELOPMENT PLANNING

Gunnar Myrdal

[From "The Significance for Agricultural Planning in Underdeveloped Countries of the Population Development," the Opening Address to the Rehovoth Conference on Comprehensive Planning of Agriculture in Developing Countries, held at the Weizmann Institute of Science in Rehovoth, Israel, from August 19-29, 1963.]

These are
excerpts
from the
Address.

Let me begin by stating what we positively know about the population development in underdeveloped countries. We know that what is rightly characterized as a population explosion has occurred and is occurring in all these countries. We know that it is caused by a dramatic fall in mortality -- in its turn caused by the application of modern medical knowledge, which has lowered very much the levels of income and living at which the Malthusian checks would become operative.

As fertility has on the whole remained on its traditionally high level, there is now in almost all poor countries a much higher rate of population increase than we ever have experienced in the rich countries. The rise of this rate is coming very rapidly and was usually not foreseen. The Indian Second Five-Year Plan, produced in the middle of the fifties, reckoned with an annual population increase of 1.25 per cent; the latest estimates run in terms of a population increase of 2.4 per cent. There has been a similar

Gunnar Myrdal is Professor of Political Economy and Financial Science, Institute of International Economic Studies, Stockholm University, Stockholm; and the author of many well-known books on economic and social problems.

necessity of a radical alteration of the assumption in regard to this important condition for economic planning in practically all countries.

We know also that a continued fall in mortality levels is to be expected, though we cannot foresee with any degree of certainty how fast that change will come about and how far it will go in the coming decades. About fertility, I believe that we can say that a spontaneous fall is not probable. Nowhere in the underdeveloped countries can income be expected to rise to such high levels that attitudes among the masses of the people will become rationalized to that extent that birth control will spread spontaneously, as at a much higher level of development it did in the Western world and, incidentally, in the Soviet Union and the European Communist countries as well. In the underdeveloped countries, the spread among the masses of people of birth control will occur only as a result of intentional government policies, directed upon that purpose.

We know that only in a very few underdeveloped countries has the government taken a definite stand in favor of spreading birth control, and that, even in those countries, the policy measures actually taken have generally not had the scope and effectiveness to have any appreciable effect on the total number of births. The obstacles blocking the spread of birth control among rural masses are also immense even when the inhibitions among the rulers of trying to promote it by intentional policy measures have been overcome. Even if family planning would become government policy in more of the underdeveloped countries and be pursued with more zeal and effectiveness than at present, the spread of birth control will in the best of cases be a gradual and slow process.

A most important fact is that the increase of the labor force for the next fifteen years is independent of the future fertility rate. Indeed, it is fairly independent of it for thirty years ahead and even longer. An intentionally carried out government policy to spread birth control among the masses, even if it were considerably more effective than anywhere now, could only have gradual effects. This implies that economic planning in the poor countries, to be realistic, has to calculate with a doubling of the labor force within the next two to four decades. Within the time horizon for effective planning, this immense increase in the labor force has to be counted on as a certainty.

The present situation in underdeveloped countries is one of severe underutilization of the labor force, though the degree varies among countries. Economic development must be thought of primarily in terms of reaching higher labor input and labor efficiency. Fundamentally, economic development means that people will begin to work longer and more efficiently and that collectively they will cooperate to create institutional conditions making this higher productivity of the labor force more possible.

To some extent, labor productivity can be increased by investments and the application of higher techniques even without changing attitudes and institutions as was shown by the colonial enclave enterprises in plantations and mines. But their major importance in development will regularly be merely to facilitate and speed up fuller and more intensive labor utilization. A superior level of popular education, a larger and better trained cadre of managerial and supervisory personnel, on all levels, a more effective administration, and a better consolidated and more determined government are, of course, conditions of greatest importance for economic development. These factors are not simply results of investment. Indeed, except for foreign capital inflow, the actual limitations of investment as well as the application of improved techniques are themselves set by institutions and attitudes as are the effectiveness of popular education, the availability of enterprise, management and organization, a better administration and government. In sum, the major obstacles and inhibitions for planned policy measures to engender development in the underdeveloped countries are in the fields of institutions and attitudes.

Implications of Population Growth for Development Planning

Let me now turn to development planning. The main point to be stressed at the start is that by far the larger part of the tremendous increase in the labor force in most underdeveloped countries during the next decades to come must be absorbed in agriculture. With the heavy concentration of the labor force in agriculture in all the underdeveloped countries, it is natural that industrialization seems to be a way out. And, undoubtedly, in the longer run, without a very much bigger proportion of the total labor force working in manufacturing industry, there is no real hope for raising levels of income and living substantially while the population is increasing so rapidly, or even of preserving the prevailing low levels. This is so, independent of the progress we may reasonably expect in our efforts to raise the productivity of labor in agriculture.

However, the rise in the proportion of the labor force engaged in industry is a function not only of the rate of industrial growth, but also of the present level of industrialization. Thus the prospects of industry offering employment to a much larger part of the natural increase of the labor force -- leaving the agricultural labor force to grow correspondingly slower -- are not realistic in the short run, and the short run in this connection means the nearest decades which is the time horizon for any practical planning. Industrialization has, in fact, to be pushed very hard already in order that the longer run possibilities for industry eventually to employ a large and more rapidly growing portion of the labor force shall not be frustrated in advance. But, its more immediate effects on labor demand are not great and may even be negative.

This means that in most underdeveloped countries for the next decades agriculture will have to absorb the larger part of the increase in the labor force. Of an actual decrease or even stabilization at a higher level of the labor force in agriculture, there can probably be no question within the two or three decades we are now considering. As mortality, particularly in the younger age groups, has been decreasing rapidly during the last fifteen years and will continue to do so, the increase in the labor force that will have to be absorbed in agriculture will generally be rising during the next decades. During these decades, the tiny spurts to industrialization will regularly also have "back wash" effects by decreasing employment opportunities in crafts.

The main conclusion from this is that development planning will have to be directed upon increasing the productivity of the labor force in agriculture, and to do this under conditions of a rapid and in most countries accelerating increase of that labor force. And this planning has to start out from an actual situation where there is a serious underutilization of labor in agriculture in the form of seasonal or more permanent idleness and of much work performance of extremely low productivity.

For one thing, the idea so commonly expressed by economists -- mostly in connection with the speculation about "underemployment" which harbors a particularly large amount of sterile and false conceptions -- that marginal productivity of labor in agriculture is zero, or near zero, or even negative, is obviously wrong as a general proposition. As is shown by different directions and intensity of farming in all countries and often within smaller regions in a country, an increased labor input and an increased labor efficiency can mostly be rewarding, even with traditional techniques and without injection of capital from outside. This is true everywhere, though naturally the opportunities are greater where much new land can be brought under cultivation than when the land reserves are smaller.

The possibilities to raise labor productivity can then be increased much more by the injection into agriculture of capital and modern techniques. This is an extremely abstract concept covering almost all of the efforts to modernize agriculture. The significance of the population development for the rational planning of these policy efforts is that this planning must meet the condition that it shall not only absorb the large-scale underutilization of the present labor force, but also create the conditions for productive work of a rapidly increasing labor force. Usually such considerations have led to the conclusion that agricultural advance in underdeveloped countries should avoid mechanization, and certainly there are valid reasons to be extremely watchful on that score. But, if carefully planned, more tractors, for instance, might make economic a bigger labor force.

Let me add a little outside my main subject matter, that all agricultural planning labors under the general difficulty that fundamental changes are needed in the attitudes to work and life of a tradition-bound agricultural population and in the prevalent institutional structure, particularly in regard to ownership and disposal of land. In the latter respect, the increase of the agricultural labor force will tend to stiffen the fragmentation of land holdings and also the inegalitarian structure of landownership by relatively increasing the landless workers and share croppers.

Effects of Declining Birth Rates

The main point I have stressed is that agricultural planning has to face the certain prospect of a rapid and, in most underdeveloped countries, at least for a time, an acceleratingly rapid increase in the labor force engaged in agriculture. In regard to the size of the labor force for the couple of decades ahead which falls within the time horizon of practical planning, the future development of fertility is of no importance, or, at best, of minor importance. This does not mean, however, that development planning should not be interested in lower fertility which, as I stressed, will not come as a spontaneous development but only as a result of a determined and vigorous policy on behalf of the government to spread birth control among the masses of rural people.

While lower fertility will not in a significant way bring down the labor force within the next decades to come, it will decrease the number of dependent children. These effects of a changing age distribution and the relative dependency burden are immediate and increasing every year. Should fertility be continuously decreased, these effects will be even more pronounced and enduring as time goes on. This means higher levels of income per head. All would eat more and better, be housed in a more satisfactory way with less over-crowding, while a relatively larger proportion of children and adults would enjoy educational and training facilities and would have more health facilities and other advantages provided by the public budget, even at unchanged public expenditures for those purposes.

There are, moreover, a number of secondary effects of higher consumption levels. The low rates of labor participation, labor duration and labor efficiency in underdeveloped countries are dependent partly on low levels of living. These secondary effects of higher consumption levels to increase labor utilization would naturally be relatively higher in the very poorest countries where levels of nutrition and educational and health facilities are most inadequate.

At higher and progressively increasing levels of income per head more could be saved or devoted to direct investment. The government would also have increased scope for bringing about higher "forced savings" through taxation or by other means. This would in time tend to

increase income per head still further with cumulative effects similar to those of the initial rise in income per head due to lower fertility.

Also, at the higher income levels attained, relatively more could be devoted to raising the living levels of children which, in the somewhat longer range, would be particularly productive. Specifically, public expenditures for providing educational and training facilities for the young could be increased which, with some delay, would have important productive effects. Even without such an expansion, given efforts in this direction would promote schooling for a greater proportion of the children. If the efforts are increased, this would increase the proportion still more.

We have, in addition, to reckon with a great number of other and more subtle secondary effects of a rising level of income per head and levels of living. The great poverty, particularly in countries like India and Pakistan, but even in large sections of the population in other countries, must be assumed to keep the vitality and enterprise of the masses at depressed levels. The passivity of those masses, their apathy and their relative unresponsiveness to induced policies aimed at changing attitudes and institutions and spreading modern technology, improved health patterns, and so on, are undoubtedly related to the exceedingly low levels of living which have persisted for so long. The changing of attitudes and institutions would be made easier.

Thus, a fall in fertility in many ways is apt to raise levels not only of consumption but also of productivity and do this immediately. The task of agricultural planning is to raise agricultural productivity under conditions of widespread underutilization of the labor force to begin with, and then under the certain prospect of a rapidly rising labor force. This is extremely difficult but we know also that these immediate effects of lower fertility are very considerable even if at the present stage of our knowledge we cannot measure them. The agricultural planner has, therefore, a stake in population policy which, if effective, would render his task much easier.

Conclusions

The main significance of population increase for development planning is that agriculture in most underdeveloped countries has for decades ahead to reckon with a big and rising increase in the labor force that has to be employed and that should be employed more fully and effectively. This implies under all circumstances an increase in the difficulties to be overcome, which anyhow (i.e., even without that increase in the labor force) are tremendously big.

In spite of the fact that lower fertility will not have much effect on the size of the labor force in agriculture for decades ahead, development planning had a very big stake in the inauguration of an effective

population policy to bring down fertility. Particularly for governments that have not taken a decided stand for such a population policy, and for those that have not given it much effectiveness, the difficulties facing development planning are simply tremendous. Trying to take an objective view and bearing in mind what we know about conditions in underdeveloped countries and about the probable development of trade and other economic relations with the industrialized countries, I think it is not excluded that this planning will not be very successful in most underdeveloped countries, including some of the most populous ones. In some countries, we might even come to see a deterioration of conditions in general, even if there would be spotty successes here and there.

This I am saying not in order to discourage my colleagues but, on the contrary, to spur them to think in radical terms. I believe that we are in for a rude awakening, both in the rich and in the poor countries. I do hope that in the rich countries this awakening will result in a greater readiness both to give aid and, what is more important, to reconsider the ways in which they are trading with the poor countries. In the poor countries, I hope, more specifically, that the necessity will stand out to break the vested interests who are now mostly hampering a more egalitarian and rational system of ownership and cultivation of land, which is a condition for successful agricultural development.

There are two reasons why the problem of bringing down fertility is urgent and why its solution cannot be postponed, even if for a transitional period agriculture could employ an increasing labor force more productively than now -- which, as I said, is a most difficult developmental goal that might not everywhere be attainable. One reason is that even with the greatest determination on the part of a government, the result of policy measures intended to spread birth control among the masses by necessity is a slow process which can only gradually give results. The second reason is that, as a result of the population development up till now, underdeveloped countries have a very disproportional age distribution with around 40 per cent, and sometimes more, of the population in the ages under 15 years as against about 20 to 25 per cent in the Western countries. This gives a tremendous momentum to the growth potentialities of these populations.

My time perspective has been the next two or three decades, during which the increase of the labor force can fairly accurately be forecast. What will happen thereafter is less clearly visible. One thing seems in a general way rather ominous. Whatever progress there can reasonably be expected in industrialization and a rise in the proportion of the labor force that in the later period can be given industrial employment, it seems certain that if a rapid fall in fertility cannot soon be induced, with the consequence that agriculture continuously has to absorb an increasing labor force, the outlook for economic development is bleak, particularly in the countries with a high man/land ratio and small land reserves. We might thus face falling levels of income and levels of living as a longer-run prospect.

REHOVOTH CONFERENCE ON COMPREHENSIVE PLANNING
OF AGRICULTURE IN DEVELOPING COUNTRIES

This Conference was held at the Weizmann Institute of Science, Rehovoth, Israel from August 19 to 29, 1963, and followed the pattern of the first Rehovoth Conference of 1960 on the role of science and technology in the advancement of the new nations. The second Conference was attended by over seventy participants from many developing and developed countries.

The subject of the second Conference was outlined in his Opening Address by Abba Eban, Deputy Prime Minister of Israel and President of the Weizmann Institute:

"This Conference represents the earnest attempt of a small nation to help solve a great issue. We shall concentrate on a practical intense study of a concrete problem. We selected the problem of rural planning with emphasis on its human aspects. We do no offence to the industrial future when we assert that for most of the new states land and water, soil and food, are still the most urgent national issues. And we are convinced that the key to increased production lies not in the land and the water, but in the men and women who will cultivate and use them. In our century, economic progress is limited not by resources but by human capacities. How can populations be trained and organized for productive rural life? This is our theme."

Papers were prepared by distinguished experts from many countries and were presented in sessions dealing with agricultural planning; rural development; the human factor in agricultural improvement; the roles of the social and political structures in rural development; agricultural research; and agricultural education and extension. As was done in the case of the first Rehovoth Conference, it is expected that the papers of this Conference will be published in book form.

FACTORS AFFECTING AGRICULTURAL PRODUCTIVITY

[From The State of Food and Agriculture 1963;
Rome, Food and Agriculture Organization of
the United Nations, 1963, US\$3.00, pp. 10-14.]

[It is customary for each issue of the FAO's annual The State of Food and Agriculture to focus on one or more specific problems in addition to presenting the world agricultural review and outlook for the year. The specific subjects selected for treatment in the 1963 report are the basic factors affecting the growth of productivity in agriculture, and the use of fertilizers in fostering agricultural development. A brief summary of the FAO's comprehensive and detailed analyses and recommendations with respect to these two subjects is reprinted below.]

BASIC FACTORS AFFECTING THE GROWTH OF PRODUCTIVITY IN AGRICULTURE

These are
excerpts
from the
report.

Higher agricultural productivity is a key element in economic development. Higher productivity of land is necessary in all but the most sparsely populated countries to provide an adequate diet for the rapidly growing population and to meet its requirements of fibers and other agricultural raw materials. Higher productivity of labor is necessary if manpower is to be released from agriculture to industry and other occupations, an essential feature of economic development; it is also necessary to raise farm incomes and to remedy the abject poverty of most rural people in developing countries. A more prosperous agriculture, in turn, can be a powerful stimulus to general economic development by providing an expanding market for the newly established industries.

At the working level, raising productivity in agriculture is largely a technical problem of applying in less developed countries the knowledge and techniques

devised by agricultural science. Further research is also, of course, necessary, especially on the problems of tropical agriculture, for hitherto agricultural science has been primarily concerned with the agriculture of the temperate zones. Raising agricultural productivity also involves the establishment of an economic and social environment in which farmers have the incentive and also the means to put into practice improved methods of farming. The present study, however, is not primarily concerned with these technical and institutional aspects, but deals rather with some of the underlying economic factors which stimulate or retard the growth of agricultural productivity, and hence with the interrelations between agricultural productivity and economic development as a whole.

The Productivity of Land

Over the period 1934-38 to 1956-60, world agricultural production increased by about 50 percent. The available statistics do not permit any global estimates of how much of this increased output came from a larger area under cultivation and how much from higher productivity. For 12 main crops for which fairly complete statistics are available, nearly the whole of the increase in the economically more developed regions resulted from increased yields, sometimes in spite of a declining crop area. In the economically less developed regions, however, much the greater part of the increase was due to an extension of the crop area, though latterly, there have been appreciable increases in crop yields in some of the less developed countries.

Comparisons between countries bring out the wide range of productivity of land at the present time. Average yields of wheat, for example, vary from about 4 to 40 quintals per hectare, a range of about tenfold. For rice, the range is about sevenfold. While such differences are to a large extent due to natural conditions of soil and climate, detailed examination suggests that they reflect no less the technical level of agriculture in a country. Thus, over the last 50 years, yields of wheat and rice in some countries have scarcely changed, while in others, often with very similar natural conditions, they have increased up to two or threefold, and exceptionally more. A ranking of countries in order of cereal yields would, therefore, show an entirely different picture for the period immediately before the first world war than that which would obtain today. In some countries, almost the whole increase has been compressed into the last one or two decades, and it is evident that when technical, economic, and social conditions are favorable, yields can be raised rather rapidly.

The measurement of the productivity of livestock is more difficult, and statistics are more scanty. In the case of milk yields, there is a very wide range between countries, and in some instances milk yields have been increased at rates comparable with the faster increases in crop yields.

The over-all productivity of land, which depends not only on differences in yields of individual crops and livestock, but also on the managerial skill with which the various farm enterprises are integrated, shows an even wider range than for single crops. High over-all productivity of land is principally associated with one or more of three factors: high density of total population relative to the agricultural area; high per caput income, and hence high per caput expenditure on food and other agricultural products; and substantial exports of farm products. Each of these factors tends to raise the demand for farm products, and it thus appears that a major factor influencing the productivity of land is the level of demand in relation to the area cultivated.

The Productivity of Labor

Whether measured in terms of labor input per unit of output (e.g., as the number of hours required to produce a given quantity of various farm products), or as the output per man engaged in agriculture, the data show that the range between the countries with highest and lowest labor productivity is even wider than in the case of land productivity. For example, in less developed countries, some 30-50 times as many man-hours are required to produce a quintal of grain as is needed in some economically more developed countries. The range varies, however, from product to product, and is considerably smaller for crops which have not yet been successfully mechanized.

When measured in aggregate terms, either as the gross output per man, or as the net output per man after deducting the cost of inputs from outside agriculture, the range is still wider. Gross output per man in the countries with the highest labor productivity (New Zealand, Australia, the United States) ranges from 50 to 80 times higher than in the less developed countries at the foot of the list. The range in the case of the net output, although very large, is narrower because of the increased portion of gross returns used for the purchase of intermediate goods and services from the nonfarm sectors and from abroad in the technically more advanced agricultures.

An examination of the ranking of the countries shows that labor productivity bears little relationship to the productivity of land, but is closely related to the general level of economic development. Higher per caput incomes in developed countries mean higher expenditures on food and other farm products. High incomes are also associated with an occupational distribution of the population where a relatively small proportion is engaged in farming. In countries at the top of the list, the proportion seldom exceeds 20 percent and is often much less, compared with up to 70 percent in the countries with the lowest productivity among those for which data are available, and probably higher percentages in still less developed countries, where available statistics do not permit productivity measurements.

As with the productivity of land, labor productivity also tends to be higher in agricultural exporting than in importing countries. In each case, the effect is to enlarge the available market in relation to the work force engaged in agriculture. A fairly close relationship is in fact found to exist between the potential market for farm products in relation to the agricultural labor force, and labor productivity in agriculture.

Data on changes in labor productivity in agriculture over time are scarce. The limited data available suggest that it rises more rapidly than in the economy as a whole as a country moves along the road of economic development. Except in a few countries, however, it remains below the average level of productivity in other sectors.

Capital in Agriculture

Rather little information is available on the contribution of fixed capital to agricultural productivity, and the comparatively few national studies which have been carried out are of unequal value and doubtful comparability. As far as they go, these studies suggest that, relative to the level of output, capital requirements in agriculture (even excluding the value of land) are usually higher than in manufacturing or mining, though lower than in public utilities or housing. Thus, they do not confirm the widely held impression that the capital/output ratio in agriculture is generally low, at least in developing countries, and that agriculture is a bargain sector requiring relatively little capital. This somewhat surprising conclusion, if found to be widely applicable, may largely reflect the general underutilization of much of the capital stock in agriculture, in particular of machinery and equipment, but often also of buildings.

Available data show clearly, however, that the share of working capital used to purchase production requisites from nonfarm sectors and abroad becomes much higher in the economically more developed countries, and may in some cases reach as much as 50 percent of the value of gross output, compared with a maximum of some 5 percent in many less developed countries.

Given the general shortage of monetized capital, steps to reduce the relative capital needs of agriculture are important. Two ways in which this can be done are by the fuller use of manpower in rural areas for capital formation on the farms, such as construction of irrigation dams, reservoirs, farm roads, etc., and by the achievement of more rapid turnover of capital by concentrating investments, whenever possible, on projects that yield a quick return, rather than on large-scale projects which take many years to mature. The turnover is most rapid when capital is used as working capital, and this emphasizes the value of raising yields by the increased use of fertilizers and other methods needing mainly short-term working capital.

Conclusions

The general pattern which emerges from intercountry comparisons of agricultural productivity is one of close correspondence between productivity and the demand for agricultural products. Demand, and especially demand from the nonagricultural and export sectors, appears to be a major stimulus of agricultural growth, and this rate of growth, in relation to available land and labor, in turn determines the growth of productivity. But, though a main stimulus, the rate of growth of effective demand also places, within fairly wide limits, some kind of ceiling on the growth of productivity, since production cannot for long exceed profitable outlets, at least in the absence of expensive forms of government intervention.

The study also emphasizes the immense capacity for agricultural expansion made possible by modern techniques, and the rapid increase both in yields and in over-all agricultural productivity which some countries have been able to achieve. Except in very unfavorable natural conditions, national levels of productivity appear to reflect the technical level of agriculture as much as or more than conditions of soil and climate.

But, although a close relationship between demand and productivity is shown to exist over a wide range of countries with very different natural conditions, levels of development and density of population, it does not follow that the growth of demand leads automatically to increased production. This will occur only if economic, social, and technical conditions are favorable. If, as in many developing countries today, the impact of urban demand at the farm level is weakened by unsatisfactory systems of marketing or obsolete forms of land tenure, farmers will have little incentive to increase output for the market, and production will lag behind demand. This is also likely to occur if there is a lack of educational and extension services to make farmers aware of improved methods, or a lack of farm credit which precludes them from adopting improved methods, even if they know about them.

A close relationship between demand and output is not, of course, unusual and applies to other goods and services as well as to agriculture. What is remarkable in agriculture is that the relationship applies over so wide a range of natural and economic conditions, and that it determines also the level of productivity. In industry, for example, an increased demand can be met by taking on more workers without necessarily any change in the level of productivity. In agriculture, however, the land is there with few alternative uses, and there is commonly an oversupply of labor with no other available employment. Both, therefore, tend to be used at very different levels of intensity according to the level of demand. Also noteworthy is the great flexibility which has made it possible to attain levels of productivity of land and especially

of labor up to 80 times as great in advanced agricultures as in those at an early stage of development.

Estimates of the magnitude of exports in relation to total output in representative exporting countries bring out the great significance of exports to the agricultures of these countries, but suggest that, in a great majority of cases, the level of domestic demand is much the more important determinant of productivity. The same applies in representative importing countries.

High average productivity per man in agriculture is found only in countries at an advanced stage of economic development, where per caput expenditure on farm products is high, and where the farm labor force is a small part of the total population. The gradual decline in the size of the agricultural population in the course of economic development is shown to have a major influence on the growth of labor productivity. It becomes especially important in the later stages of economic development, when the size of the nonfarm population, and hence of the non-farm market, increases at a rapidly accelerating rate in relation to the size of the agricultural work force. It is this change, together with the development of agricultural science, which appears to account for the remarkably rapid growth of farm labor productivity in economically more developed countries in the last few decades. It follows that the growth of farm labor productivity can be effectively stimulated by measures to reduce the farm population, e.g., by facilitating the movement of manpower to other occupations or the retirement of elderly farmers.

While a high level of labor productivity is found only in economically more developed countries, there are a number of instances where a high output per hectare has been attained in countries at a fairly early stage of economic development and, with the progress of agricultural science, this becomes increasingly possible. This seems a point of considerable importance, as it is the output per hectare which mainly determines the total food supply, and hence the possibility of feeding the rapidly growing population in developing countries at an adequate nutritional level. In view of the explosion of population, it is certain that for some decades to come a majority of the people in developing countries will remain in agriculture -- and largely in subsistence agriculture. But, this need not necessarily condemn them, as so often at present, to malnutrition and poverty, if they were aware of and encouraged to adopt improved methods of farming. They could then increase their output, with little additional labor or expense, sufficiently to provide an ample diet for their families, even though their market outlets in the towns were still limited.

* * *

FERTILIZER USE: SPEARHEAD OF AGRICULTURAL DEVELOPMENT

The immense possibilities for sustained increases in crop production which can be realized through greater and more efficient use of fertilizers and manures have already been amply demonstrated in many countries in all parts of the world. It is in less developed countries, where populations are growing rapidly, hunger and malnutrition are widespread, and a large part of the population is poorly housed, that the greatest increase in the production of food and fiber is needed, and the greatest potentialities, therefore, exist for a fuller use of fertilizers.

Apart from higher yields, benefits which may result from the increased use of fertilizers include a widening of the range of crops that can be grown efficiently, notably in areas where certain crops could not be grown because of deficiencies of one or more plant nutrients. New crops, in turn, may mean new opportunities for mechanization and for changes in the farm labor requirement. The use of fertilizers is a powerful "lead" practice for the adoption of new ideas because its benefits are quickly realized. Their use is regarded by many as a criterion of the degree to which modern agricultural practices have been adopted.

The efficient use of fertilizers must go hand in hand with the provision of other inputs. Irrigation, for example, may be a prerequisite, and so may be the development of crop varieties which can utilize larger applications of fertilizers, or of the methods of controlling diseases and pests in the more intensively cultivated crops.

World consumption of commercial fertilizers has increased from about 2 million tons at the beginning of the century to 9 million tons in 1938/39, and 28.5 million tons in 1960/61. Although the use of fertilizers in the developing countries is increasing, most of the world's supply is used by a few economically more developed countries. For example, North America, Oceania (Australia, New Zealand), and certain countries in Europe, with only about a quarter of the world's arable land, use three-quarters of the fertilizer.

The need for a balanced supply of nutrients in the soil should be emphasized, particularly in the tropics where, because of the nature of the soil, deficiencies are easily induced by excessive rates of application of certain nutrients. Other problems which must be carefully watched are the symptoms of nutrient deficiency, the toxic effects of excess trace elements, the nutrient requirements of different crops, and the residual effects of fertilizers.

Greater use needs to be made of fertilizer in forestry and fisheries. Even in silviculture proper, where sizable areas of trees are grown in stands on relatively long rotations, the possibility of using fertilizers is receiving considerable attention. For many years fertilizers, particularly in the organic form, have been used in fish ponds for the purpose

of stimulating the growth of plants on which fish feed. Recently, the kinds and amounts of fertilizer required have been studied more intensively, with the result that soil and water tests are being used to predict fertilizer requirements. Inorganic fertilizers are replacing the organic forms in many places.

Physical factors affecting the use of fertilizers include chemical and physical properties of soils. The important chemical properties are those which affect the amount and availability of the sixteen elements which are essential for plant growth. While equally important, these elements are required in widely different quantities. Climate is a major factor influencing the development of soils, the type of crop which can be grown on them, and hence also the kind and amount of fertilizers to be used. The fact that chemical properties can be modified fairly readily places more emphasis on physical properties which do not lend themselves so readily to modification. Texture and structure are two physical properties which should receive more attention because they are key properties in determining the plant-air-water relationship and therefore the physical environment in which the plant grows. Manure plays a dual role, acting both as a source of nutrients and as a soil conditioner.

Economic and social factors with an important influence on fertilizer use include price relationships between fertilizers and the crops to which they are applied; the level of income of the farmers and conditions of land tenure which, if unfavorable, may reduce the incentive to use fertilizers; and adequate credit and distribution facilities to ensure that supplies of fertilizers are available to farmers at the right time.

Agricultural extension is necessary to bring home to the farmer the value of fertilizers. The different approaches to the problem include soil surveys, long-term field experiments on important soil types, exploratory plots on farmers' fields, chemical analysis, and foliar diagnosis techniques. It is recommended that from some or all of these a local system should be developed which takes into account the soils, the farming system, the skill of the farmers, and the advisory staff in the particular area.

Estimates of the world reserves of fertilizer materials, though conservative, do not suggest any threat of shortage. The advisability of establishing domestic fertilizer industries in developing countries is receiving increasing attention in order to save foreign exchange, because of the availability of raw materials, and for political reasons. The capacity of the plant and the extent to which this capacity is utilized are important factors in determining the success of newly established fertilizer industries.

In view of the remarkable response of crops to fertilizers and other treatments, and of the rapid advances currently being made in agricultural science, it is clear that very many times the present quantities of food can be produced. In this endeavor, fertilizers will continue to play a very important part.

WORLD TRADE

DYNAMIC TRADE THEORY AND GROWTH IN LESS DEVELOPED COUNTRIES

Joseph E. Haring

[From Kyklos; the List Society, Basle,
Vol. XVI, Fasc. 3, 1963, pp. 371-391.]

[Most of the footnote references of the original article are reprinted at the end of this condensation in the form of a selected bibliography.]

This is a
condensation
of the
article.

The purpose of this essay is to trace the history of thought on the subject of trade and development. The relationship between exports and income has fascinated economists and historians for a long time. We shall survey the history of ideas about this relationship, beginning with classical trade theory and Keynesian income theory, and identifying some of the dynamic approaches that have been used to explain the historical coincidence of export and income expansion. Then, we shall review some methods used to apply these theories to less developed countries.

Roots of Analysis: Trade Theory

Most of the literature on this subject has been rooted in the classical theory of international trade. It begins with Ricardo's theory of comparative costs,

Joseph E. Haring is Chairman of the Department of Economics and Associate Professor of Economics at Occidental College, Los Angeles.

presented in Chapter VII of the first (1817) edition of his Principles. Under free trade, each country will specialize in the production of those goods for which its relative costs are low, and import goods for which the relative costs are high. The theory assumes that all factors of production (land, labor, and capital) are completely free to be used in production, and can be shifted from one product to another without restriction. The theory is based on the labor theory of value, which assumes that the factor "labor" is the sole means of production.

As presented by Ricardo, the theory is much over-simplified: the assumptions are only two countries, two commodities, simple barter-exchange, constant costs, complete mobility of factors of production within a country, and complete immobility of factors between countries. Much of the later literature on the subject was concerned with stating explicitly and then dropping these simplifying assumptions to make the theory more realistic. But the presumption in favor of specialization and trade persists all through this literature. There remains the problem of how, when, and where the policies of specialization and trade should be applied.

Myrdal claims that the theory applies only to the countries in which it was written -- the developed countries. In less developed countries, the small size of the domestic market and of the productive units, in addition to the lack of social overhead capital, tends to render unprofitable manufacturing and commercial activities that would be very lucrative in rich countries, according to Myrdal.

Nevertheless some developing countries have tried it and succeeded. Israel has found advantages in following the classical trade prescriptions, and vigorous growth in a number of export lines has occurred. But the problem of calculating comparative advantage is greatly complicated in that country because of the many interferences with the market price system. Japan after the Meiji restoration followed a policy of economic expansion through export promotion. Elsewhere in the Orient, Hong Kong's experience since 1948 suggests that even laissez-faire policies -- as contrasted to positive export promotion policies -- may result in specialization, trade, and growth if capital and entrepreneurial skills are in adequate supply.

To generalize briefly, it appears that countries with limited natural resources are forced to rely on comparative advantage because they cannot hope to produce the whole range of manufactures and primary products that the consuming public desires. Small countries have an additional problem in that the size of the domestic market is too small for efficient-sized factories for some products -- such as autos, steel, and machinery. Recent experience in export markets and the state of a country's foreign reserves and borrowing capacity also bear directly on a country's ability to compete in world markets.

India, because it is large and presumably well supplied with natural resources, has less pressure to follow the classical policies of specialization and trade. The United States, large and well endowed with natural resources as it is, also has few incentives to follow rigorous trade policies. The policies of trade and specialization seem too demanding for all but small or under-endowed countries.

The Heckscher-Ohlin version of the theory of comparative cost has been widely recommended as a basis for development because it does not depend on the existence of perfect competition in the domestic markets of trading partners. This theory has the additional advantage of not requiring that markets be in equilibrium at the start. It explains that production of commodities which use more of a country's relatively abundant factors of production will make trade profitable. A country can export these commodities and import commodities using its relatively scarce factors. One difficulty with this theory is that it assumes that factors of production are comparable the world over -- that is, that the qualities of land, mineral resources, labor skills, and other factors are equal everywhere. Another weakness of the Heckscher-Ohlin version of trade theory is that it assumes the methods of production to be the same in all countries.

But the greatest weakness of both the classical and Heckscher-Ohlin versions of trade theory is their inability to explain how production efficiency, market prices, and economic structure change over time. Modern growth theory is concerned with just these things.

Roots of Analysis: Growth Theory

Growth theory has been framed in terms of the tools of income analysis made famous by Keynes -- who, like Ricardo, wrote about problems of developed countries. The level of analysis for income theory is wholly different than for trade theory. The concept of national income, as we shall use it here, refers to the total earnings of a nation or region from all sources. Income analysis is a bird's-eye view of the economy, while the approach of trade theory might be called the worm's-eye view. Trade theory was framed in terms of prices, which explain how a given output is distributed. Income theory attacks the problem of changing the size of output, and thus may neglect prices, production efficiency, and distribution.

Keynes' famous General Theory of Employment, Interest and Money is the accepted starting point for growth analysis, though of course antecedents to his ideas can be found in books written centuries earlier. Income is defined as the sum of earnings of the factors of production. This income is the result of spenders purchasing the services of production factors. For example, a shoe factory worker earns income because the factory owner is willing to buy the worker's services.

Raising the level of income requires that wage-earners be willing to work and employers be willing to purchase services. Keynes, writing during the Great Depression, saw that there was an abundance of unemployed people ready to work, but few employers willing to purchase services. One possible solution would be to raise consumption (i.e., get people to buy more shoes) and thus create a demand for workers. The employers, finding they could sell more shoes, would thus be happy to hire more workers. Or, the shoe manufacturer might be persuaded to build up a large inventory of shoes, and this would also increase employment. The act of inventory accumulation is called investment. Keynes also saw that persuading the government to buy shoes or hire shoemakers would accomplish the goal of increasing income in depression-ridden economies. As a fourth possibility exports could stimulate demand, but at Keynes' moment in history trade expansion on any basis was nearly impossible.

The problem of underemployment in a developed economy is only half that faced by less developed economies, where there are no workers who know how to make shoes, no factories in which to make shoes, and nobody with the money to buy shoes. Not even the government can buy enough shoes to put all would-be shoemakers to work, much less provide the funds to build shoe factories, hire managers, and train the necessary workers. It is not only a problem of inadequate demand, but also of inadequate supply. Less developed countries are in a "vicious circle" of poverty. It takes time to break this vicious circle, and it is the interactions over time among producers, consumers and investors that we must study now.

Growth theory is based on assumptions that differ widely from those underlying the theory of comparative cost: (1) current factor prices (e.g., wage rates) have no necessary relationship to future factor prices or even to the prices that would be charged if new uses for factors would be found immediately; (2) the quantity and quality of factors of production may change substantially over time, partly as a result of development itself; (3) some markets are currently too small to permit large, efficient production processes to be used; and (4) some products are salable only if complementary goods are readily available in suitable quantities. Examples of mutually complementary products are: gasoline and automobiles; iron ore, coal and limestone; and alumina and electric power. These assumptions require the erection of new theoretical explanations and can lead to conclusions exactly opposite to those derived from the theory of comparative cost.

There are two principal streams of thought that have developed out of growth theory. One is connected with the names of Nurkse and Rosenstein-Rodan and is called "balanced growth." The other -- called "unbalanced" or lopsided growth -- has been formulated by Scitovsky, Streeten, and Hirschman.

Balanced growth is based on the idea of simultaneous expansion on several fronts. The Nurkse version, which received wide acclaim, explains that a developing country cannot expect a shoe factory to be profitable if most of the potential buyers have no money to buy shoes. It is necessary to establish several -- say 15 or 20 -- consumer-goods factories at the same time, each to produce one of the many items that consumers want to buy. The workers in each of these industries, because they have balanced needs for shoes, clothing, foods, hand tools, house furnishings, and the like, will be customers for the output. They will specialize in the production of one commodity and then buy all the other things they need from the factories in which their neighbors work. Thus, the demand for workers can be derived from the demand for goods, and the demand for goods will be effective because the workers have jobs. Thus, the vicious circle is broken. The theory of balanced growth assumes that the supply of either capital or labor is large and available at low cost -- some writers even assume the supply to be unlimited. This rather heroic assumption provides a base for showing that investment will be more profitable if spread over several related sectors, rather than concentrated in one area.

Unbalanced growth is formulated on the assumption that the supply of capital and labor is fixed -- that it is possible to obtain only a limited amount of investment funds or labor services (work) at a given time. In order to have factories that are big enough to be efficient, it may be necessary to concentrate all or most of the available resources in one or two sectors, leaving the needs for other goods unrequited or at best requited from imports. The optimal pattern of development would then be a programmed series of concentration in one industry after another, with balance to come only in the future. Thus, the familiar concept of economies of scale is one argument for unbalanced growth. The second is Streeten's thesis that technological progress may be more rapid if increases in production are concentrated in a few sectors. In a third argument, Hirschman explains that imbalance may be necessary because of shortages of entrepreneurial ability.

But neither the balanced nor the unbalanced approach to economic development has been subjected to much rigorous examination for historical relevance, partly because they are not formulated in such a way as to make testing possible. Balanced growth has been examined in the light of historical experience by Gerschenkron, Rostow, Ohlin, and Hughes, but it has been difficult to find examples of balanced growth in the "horizontal" sense of expansion of many complementary consumer goods industries at one time. Ohlin did find some examples of vertical expansion of industries (like textiles, iron and steel) in which simultaneous development of raw materials sources, semi-finished goods, and consumer goods occurred, but this could as easily be called an example of unbalanced growth since only one industry expanded at a time. The

historical studies revealed that most industries were dependent on other industries as sources of supply or as potential customers.

The net contribution of growth theory has been to cast doubt on the classical presumption that perfect competition, even if it could be achieved, would lead to optimum development. Classical trade theory, because it assumes competition, is thus also doubted.

Dynamic Approaches to the Theory of International Trade

There has been no systematic development of the theory of international trade that would embody the assumptions of growth theory listed above. But, fragments of dynamic trade theory have been published, and they can be summarized under four groupings: (1) exports as a separate economy -- the theory of dualism; (2) exports as a leading sector; (3) exports as a lagging sector; and (4) exports as a balancing sector.

Exports as a Separate Economy. This is as much an explanation of how export trade can be prevented from affecting a less developed economy as it is an explanation of developmental expansion. The thesis proposed by Boeke is as follows. Exports of primary products such as iron ore, oil, rubber, tin, wheat and other agricultural products are frequently made possible by investments of foreign business firms which are concerned solely with the extraction of resources at low cost. The establishment of mines, plantations, and the like is accompanied by some investment in roads, harbor facilities and even training of suitable workers. In the long run, Boeke tells us, these extractive industries are deliberately insulated from the remaining parts of the underdeveloped economy, as in Indonesia under Dutch rule -- Boeke's case study. The dualist theory of development may have fit some countries in the 19th century and even certain colonies in the first half of the 20th century. However, his theory doesn't help us much today.

Exports as a Leading Sector. This is a much more interesting thread of thought. In this theory, expanding foreign trade stimulates growth. A rise in exports leads to increases in national output, and exports are thus what Rostow calls a "leading sector," and Robertson has called an "engine of growth." The connections between trade and growth fit several patterns. In an economy where labor, capital, and other resources are fully employed, an increase in foreign demand may increase income by raising the selling prices or inducing inventions and innovations which make it possible to produce more goods at lower costs at home. The result will be increased income, and the increase itself will lead to still higher incomes through increases in savings, investment and output. A second and more interesting case for our purposes is one where labor or capital or both are under-employed. Here, expanding exports provide employment opportunities, and thus generate income, which is in addition to the gains from trade that come in the

full-employment case. Professor Hirschman has also pointed out that increases in exports may call attention to investment opportunities, and thus guide entrepreneurs and investable capital to profitable ventures that may never have occurred otherwise. A third case is one where a country with under-employed resources has industries operating at a level too small to be efficient. Increases in foreign demand will permit these industries to expand to economic size and thus reduce the unit costs of production, which means an increase in income.

Each of these three cases explains how growth can occur as a result of increases in exports, and the assumptions of each of them are consistent with growth theory: (1) prices may be determined in any way -- not necessarily by perfect competition; (2) quantity and quality of factors of production may change; (3) the advantages of large-scale production can be introduced explicitly in the model; and (4) demand for exports and other goods can change freely -- even with changes in demand for complementary products. The difficulty with these theories is that they are hard to test.

However, economic historians have not been deterred by the problems of proving causal relations between exports and growth. Robertson and Rostow have found numerous examples of growth through trade; Kindleberger paraphrases Deane and Habakkuk as having said '...the most satisfying interpretation of British experience in the Industrial Revolution is that the sudden and important acceleration in exports was responsible for British growth.' In contrast, Nurkse, writing about the prospects of trade serving as an engine of growth for present-day less developed countries, was pessimistic about the practical value of this theory as a guide for policy. He maintained that import restrictions by rich industrial countries could wipe out potential gains from export by developing countries, and anyhow the latter might not be able to compete successfully in world markets for manufactured goods because the simplest types of manufactured goods are not in strong demand and complicated manufactures are too difficult for the unskilled labor of less developed lands. Nevertheless, Puerto Rico, Japan, Hong Kong and other less developed areas have achieved remarkable growth by export of manufactures, and Jamaica, the oil-producing countries, and certain others have enjoyed growth through the export of primary products.

The most disturbing theoretical criticism of both the theory of exports as a leading sector and a reconstituted (long-term) theory of comparative advantage has been made by Hirschman. He says that there exists a non-quantitative interdependence between sectors; that expansion will fire the imagination of entrepreneurs and politicians and lead them to fruitful endeavors in some sectors but not in other sectors; that investment in some types of projects will lead to a willingness to work, but not in others. Whether these psychological and

sociological factors can be measured has not yet been determined, but many writers feel that they may be significant. Another type of psychological barrier to development through exports (and thus a qualification of trade theory) has been pointed out by Wiles, who says that an aversion to risk-taking in less developed countries may limit the extent of specialization for export trade.

Exports as a Lagging Sector. This is the title given to the Prebisch thesis that foreign trade is doomed to lag behind domestic growth because of the declining world demand for primary products. Wheat, tin, natural rubber, coffee, cocoa, zinc, copper, lead, natural nitrates, and meat are no longer easy to sell to advanced countries for several important reasons: (1) some of these goods are being replaced by synthetics; (2) advanced countries are using raw materials more efficiently; (3) demand for foodstuffs, in particular, does not increase proportionately with income in rich countries as other consumer goods become more attractive; and (4) competition for the sale of raw materials is increasing, driving the world prices down but not reducing the cost of production in most less developed countries. Clearly, primary producing countries that cannot lower their own costs of production must look elsewhere for development. This is a generalization often repeated in Latin America, where Prebisch has been working. One result has been the establishment of industries for production of import-substituting industries designed to replace imports and thus make the local economy more autonomous. The analysis can thus be phrased positively: if the export sector lags, then some other sector must lead. German development late in the 19th century was led by expansion in the domestic sector, as was that of Australia and South Africa more recently. India is following a conscious policy of development through expansion of the domestic sources of supply, and neglect of exports has led to stagnation in that sector. Pakistan, which also has serious development problems, has an export sector which lags behind the rest of the economy.

Exports as a Balancing Sector. This is a phrase used to describe economies which meet increased domestic demand for food by improving agricultural efficiency or exporting manufactures to pay for imported food. But, the essence of the notion of exports as a balancing sector is the idea that the foreign market relieves a developing country from the necessity to seek balance in any sector or between sectors; it need only produce what can be sold, and buy what can be bought. The virtue of this particular model is that it provides a rationale for promoting exports in countries where exports are not likely to become the leading or dominant sector of the economy. Exports can be promoted to balance the country's economy, to pay for the marginal resources that the local economy must import. W. A. Lewis cites Japan as the classic example of a country which undertook exports of manufactures in order to balance

its output. Most countries at one time or another appear to have been using foreign trade to balance their economies. We must remember this central point: almost every country needs at least a few exports to pay for the imports it must have.

Trade Theory: A Special Case of Growth Theory

Since trade theory is at bottom a theory of how income increases by means of international trade, it is really nothing more than a special case of growth theory, which purports to explain how income increases by whatever means. However, trade theory and growth theory have been based on very different assumptions. Trade theory assumed unchanging cost and demand conditions, while growth theory assumed that investment, income and other variables were constantly changing. To be more useful in a dynamic, changing economy, trade theory must be recast in terms of the assumptions of growth theory. The closest thing we have to a dynamic theory of trade is a collection of statements about the role of exports: exports as a separate economy, as a leading sector, as a lagging sector, and as a balancing sector. These four classifications serve to highlight important but separate aspects of what might be called a reconstituted theory of international trade, a theory based on long-run comparative advantage. The task remains of bridging the gap between theory and practice in a rigorous manner. However, a number of economists have become impatient with both trade theory and growth theory: they have made decisions and policy recommendations without the benefit of either stream of thought, using "rules of thumb" instead.

Investment Criteria

Let us examine what these practical-minded men have to say. Their decision rules have been called "investment criteria," and an elaborate theoretical structure was built to justify them on logical grounds. The best of these criteria are based on the dynamic assumptions of growth theory. Our task is to determine whether these criteria can be used as a scaffolding for developing a dynamic, reconstituted theory of international trade.

The principal question asked by trade theory is 'What shall be produced for export?' The general answer is, 'Produce what will be the most profitable.' Classical trade theory told us to specialize in those goods in which we enjoyed a comparative advantage in production, but for less developed countries we must define this in terms of what the expected or future comparative advantage will be. The practical question for development is this: 'What shall we try to produce?'

The simplest approach is to concentrate on the scarcest resource, capital, and thus study investment. Buchanan, one of the first of the "criteria" writers, took this approach and came up with the recommendation

to produce those goods which require least capital per unit of output. He suggested that new investment be made where the amount of capital per unit of output is smallest. The criterion is called the "minimum capital-output ratio." But the criterion is too simple: the quantity and the quality of natural resources and the labor force must also be considered, and the problems of measuring costs and valuing output must be specified. A closely related criterion is the capital-labor ratio, but this, too, is inadequate because it assumes that labor and capital are everywhere the same (or at least comparable) and that the methods of production are equivalent. Neither does it make allowance for special advantages of particular combinations of these two factors.

A much more comprehensive allocation criterion is the social marginal product (SMP) of a particular resource in use. As proposed by Kahn, social marginal product is the net contribution of an additional (marginal) unit of investment to the national product. His procedure for making a decision is to rank all investment projects by their SMP and then spend the investable funds on the top projects, going down the list until all funds are exhausted. An even simpler rule of thumb would be to state that all investment projects with an SMP greater than the current cost of capital (say 6 per cent) can be approved; many large business firms use this criterion regularly. The virtue of the SMP criterion is its great generality. Every conceivable kind of cost can be included in the calculations of SMP, as well as all possible modifications of value for output. And the calculations can include any and all future periods. However, there has been some disagreement about the methods of calculation. Galenson and Leibenstein in a sharply critical article suggested that the best criterion was one which selected those investment projects which maximize the amount of savings reinvested in the economy. But, the goal of their criterion was not to maximize income over time or even in the near future; their model maximizes income at a particular time in the distant future. Hence, their model is indifferent to shorter term effects, which may be so undesirable as to make such maximization of income unrealistic.

Eckstein has developed a formula that reconciles the SMP and the marginal reinvestment criteria. First, he assumes that the goal of the model is to maximize the present value of the future consumption stream, with some appropriate discount rate (say 6 per cent) used to discount the values of consumption in each future period. The larger the discount rate, the more important immediate or near-future consumption is; with a small discount rate, the distant future consumption becomes more important. Second, he includes a term for the additional consumption to be achieved by reinvesting savings. This term brings into the analysis the possible benefits from high reinvestment of savings. But the substance of the model depends largely on the discount rate, and the typically high rates found in underdeveloped countries emphasize the relatively near future as relevant for policy.

The criterion of social marginal productivity is (in principle) an extension of the long-term theory of comparative advantage because to the question, 'What shall we produce for export?' both give the same answer, 'produce what will be most profitable.' The contribution of the SMP criterion is to redefine profitability to include social values. Thus, investment criteria, growth theory, and dynamic (long-run) trade theory all answer development questions with similar recommendations, though all three approaches are fragmentary and incomplete. Investment criteria seem to be excellent trade and investment principles for countries where statistical measures of important elements of the economy are not available. But, a more complicated theory is required if a large number of variables are to be included in the analysis.

Linear Programming and Shadow Prices

Linear programming is a logical method of accounting for many variables as they change and affect each other. It is a method of calculating the social product of large and small changes, and it is capable of evaluating all the indirect effects that occur in a dynamic economy. It is in no sense a new or separate theory of economics. Here, the general problem is to maximize national income subject to the constraint that demand for each good should equal supply. It is necessary to estimate the quantity of all available resources, list all goods to be produced, and define all techniques of production. The general procedure for solving the model involves three steps: (1) finding a set of production processes that satisfies the supply-demand requirement; (2) calculating the prices that would equate supply and demand (these theoretical prices are called shadow prices); and (3) using the shadow prices to determine whether any changes in production activities would increase national income. Thus, the questions of what to produce, where to invest, and what to export are answered in quantitative terms; both quantity and price outcomes are specified.

The difficulties associated with the use of linear programming are largely those of obtaining information; no country in the world has enough data to be completely described, and the problem of defining production techniques as they change over time has not yet been solved.

Input-output studies -- sometimes called interindustry studies -- are a special, restricted case of linear programming that has been used as a computing device in the analysis of development problems. Input-output analysis is based on a cross-section view of the economy at a moment in time. It is like a census survey in that it describes a large population of data instantaneously, but does not by itself trace the pattern of change that is altering the observed data. It is also like a census in that it involves much work of compilation. A series of input-output tables for an economy would probably provide very good insight into the growth pattern by recording the changes in the sectors as they

occur. Chenery and others have shown how input-output tables can be used when data for only a few years are available, and a dynamic model of changes in the system has been devised.

Dynamic Macro-Economic Models

Time series of income, investment, trade and other variables can, however, be studied directly. The method is called econometrics, or the use of dynamic (macro-economic) models. The framework for studying them has been developed in considerable detail, and some relevant statistics exist for some less developed countries. The literature goes back to the work of Tinbergen and has been developed by Klein and others. Recent applications of the method have been made by Suits, Klein, and Chenery and Bruno.

Econometric models are nothing more than the statistical embodiment of economic theory, stated in such a way as to permit prediction and testing. The usual form is a series of simple equations defining relations between what the model-builder considers to be important economic variables for study. Some models are used simply to describe an economy; others are used to forecast economic events. The reactions to policy changes (regarding, say, trade or investment) can also be studied with dynamic models and international comparisons between economies can be made.

Dynamic models have been built around income analysis, and some of them have neglected prices, allocations, and distribution. But the modern, large-sized models have price variables and yield estimates of relative productivity between sectors. Even the most complicated of these models, however, has not used price equilibrium between demand and supply as an organizing principle in the way that linear programming does. Income equilibrium between the various sectors was used instead. This is a basic difference between linear programming and dynamic macro-economic models which use income equilibrium as an organizing concept. Linear programming is in the classical tradition of the theory of comparative costs; dynamic models are more in keeping with the new tradition of income analysis. Each approach, with some awkward modifications, can be used to solve the other's problems, and both purport to shed light on the development process. Unfortunately, no satisfactory marriage between the two approaches has been found.

Conclusions

This survey of the theories of international trade and growth has led us through a long and many-sided history of thought, mostly by long jumps. We have found that the classical theory of international trade, once it is modified by the assumptions of growth theory, can be reconstituted to something not inappropriate to the problems of less developed countries.

The broadly-defined investment criterion "social marginal productivity" (SMP) provides a satisfactory first step to the application of a reconstituted trade theory to the investment problems of developing countries, but the methods of computation for this criterion leave much to be desired. Linear programming and its corollary, input-output analysis, are promising tools of calculation, but they have not yet been used extensively for lack of reliable data and electronic computational facilities. Dynamic macro-economic models, because they are based on time series analysis and are built in terms of policy variables and for prediction, provide an alternative calculus for analyzing trade and growth. Because the data for time series analysis is more generally available than price data, macro-economic models are capable of being used in more places than linear programming. A wide variety of macro-economic models has been used recently in the study of economic development and economic history. These econometric models have the virtue of expressing several simple growth theories simultaneously, making possible a study of the interrelations of theories and interactions of variables.

Selected Bibliography

Boeke, J. H., Economics and Economic Policy of Dual Societies, Haarlem, Netherlands, H. D. T. Willink, 1953.

Buchanan, N. S., International Investment and Domestic Welfare, New York, H. Holt & Co., 1945.

Chenery, H. B. and Bruno M., "Development Alternatives in an Open Economy: The Case of Israel," Economic Journal, Vol. LXXII, March, 1962.

Chenery, H. B., "Comparative Advantage and Development Policy," American Economic Review, Vol. LI, March, 1961.

Chenery, H. B., "Patterns of Industrial Growth," American Economic Review, Vol. I, September, 1960.

Dorfman, R., Samuelson P., and Solow, R., Linear Programming and Economic Analysis, New York, McGraw-Hill, 1958.

Dorfman, R., "Mathematical, or 'Linear' Programming; A Non-mathematical Exposition," American Economic Review, Vol. XLIII, December, 1953.

Eckstein O., "Investment Criteria for Economic Development and the Theory of Intertemporal Welfare Economics," Quarterly Journal of Economics, Vol. 71, February, 1957.

- Galenson, W. and Leibenstein, H., "Investment Criteria, Productivity, and Economic Development," Quarterly Journal of Economics, Vol. 69, August, 1955.
- Gerschenkron, A., "Economic Backwardness in Historical Perspective," in Hoselitz, B., ed., The Progress of Underdeveloped Areas, Chicago, University of Chicago Press, 1952.
- Haring, J. E., "Export Industrialism and Economic Growth: A Dynamic Model," Western Economic Journal, Vol. I, Spring, 1963.
- Heckscher, E. F., "The Effect of Foreign Trade on the Distribution of Income," Ekonomisk Tidskrift, Vol. 21, 1919.
- Hirschman, A. O., The Strategy of Economic Development, New Haven, Yale University Press, 1958.
- Hughes, J. R. T., "Foreign Trade and Balanced Growth: The Historical Framework," American Economic Review, Vol. XLIX, May, 1959.
- Kahn, A. E., "Investment Criteria in Development Programs," Quarterly Journal of Economics, Vol. 65, February, 1951.
- Keynes, J. M., General Theory of Employment, Interest and Money, New York, Harcourt, Brace & Co., 1936.
- Kindleberger, C. P., Economic Development, New York, McGraw-Hill, 1958.
- Klein, L. R. and Goldberger, A. S., An Econometric Model of the United States, 1929-1952, Amsterdam, North Holland Publishing Co., 1955.
- Leontief, W. W., The Structure of American Economy, 1911-1939, second edition, New York, Oxford University Press, 1951.
- Myrdal, G., Rich Lands and Poor, New York, Harper, 1957.
- Nurkse, R., Patterns of Trade and Development (Wicksell Lectures, 1959), Stockholm, Almqvist & Wicksell, 1959; also New York, Oxford University Press, 1961.
- Nurkse, R., Problems of Capital Formation in Underdeveloped Countries, New York, Oxford University Press, 1953.
- Ohlin, B., Interregional and International Trade, Cambridge, Massachusetts, Harvard University Press, 1933.
- Ohlin, P. G., "Balanced Economic Growth in History," American Economic Review, Vol. XLIX, May 1959.

Robertson, D. H., "The Future of International Trade," Economic Journal, March, 1938. Reprinted in American Economic Association, Readings in the Theory of International Trade, Philadelphia, Blakiston Co., 1949.

Rosenstein-Rodan, P. N., "Problems of Industrialization of Eastern and South-Eastern Europe," Economic Journal, Vol. 53, June-September, 1943.

Rostow, W. W., The Stages of Economic Growth, Cambridge, University Press, 1960.

Scitovsky, T., "Growth -- Balanced or Unbalanced," in Abramovitz, M., et al., The Allocation of Economic Resources, Stanford, Stanford University Press, 1959.

Streeten, P. P., "Unbalanced Growth," Oxford Economic Papers, Vol. 11, June, 1959.

Suits, D. B., "Forecasting and Analysis with an Econometric Model," American Economic Review, Vol. LII, March, 1962.

Tinbergen, J. and Bos, H. C., Mathematical Models of Economic Growth, New York, McGraw-Hill, 1962.

Tinbergen, J., Statistical Testing of Business-Cycle Theories, Vol. II, Business Cycles in the United States of America, 1919-1932, Geneva, League of Nations, 1939.

Wiles, P. D. J., "Growth Versus Choice," Economic Journal, Vol. 66, June, 1956.

PROJECTING THE TRADE NEEDS OF
THE DEVELOPING COUNTRIES IN 1970

[From World Economic Survey 1962, Vol. I,
The Developing Countries in World Trade;
Department of Economic and Social Affairs,
United Nations, New York, N. Y., 1963
(Sales No. :63 II.C.1) US\$2.00., pp. 5-9.]

[Volume I of the United Nations World Economic Survey 1962 deals with international trade. This subject was chosen in view of the UN Conference on Trade and Development scheduled to be held in Geneva from March 23 to June 15, 1964.

In addition to the projections of the trade and aid needs of the developing countries excerpted below, this volume also contains chapters dealing with international commodity trends and problems; the expansion of markets for exports of manufactures from the developing countries; the implications of European integration for the trade of the developing countries; trade between the developing countries and the centrally planned economies; and financing for an expansion of international trade.

Volume II of World Economic Survey 1962, Current Economic Developments (New York, United Nations, 1963, viii and 93 pp. (Sales No. :63 II.C.2, US\$1.50)), contains the customary review of current economic developments and problems in the three groups of countries -- industrially advanced, developing, and centrally planned.]

These are
excerpts from
Volume I of
the Survey.

An exercise that seeks to throw light on the future trade needs of the developing countries must by its nature involve a series of highly tentative projections. It is also worth noting that projections are not the same as outright forecasts of the future; they do not

amount to prophecies. All projections inevitably include a large element of judgment and -- also inevitably -- all are subject to some margin of error.

The limitations inherent in projections acquire an even greater significance when the problem concerns the less developed countries. In the first place, there are innumerable shortcomings in the data currently available. Furthermore, in the developing countries, where every day brings new activity on the part of governments to speed the pace of economic advance and to diversify the structure of the economy, there are bound to be policy changes with far-reaching effects on the process of development. And, inevitably, there are bound to be policy changes in other parts of the world which, through their impact on world trade and payments, will exercise considerable influence on the economic expansion of the less developed countries. It is clear, therefore, that the results of the calculations spelled out below at the request of the Preparatory Committee of the United Nations Conference on Trade and Development can be no more than of an illustrative nature.

The principal elements of the exercise must obviously come from the experience of the past. As a first step, therefore, certain relations are derived from the available data relating to the nineteen fifties.

The total gross domestic product of the less developed countries, measured in constant 1959 prices, is estimated to have increased from \$121 billion in 1950 to about \$180 billion in 1959, or at the annually compounded rate of 4.65 per cent. During the same period and at the same constant prices, gross domestic fixed capital formation increased from less than \$17 billion to over \$28 billion. The exports of the less developed countries to the industrially advanced countries (North America, Western Europe, Japan, Australia, New Zealand and South Africa) increased from a total of \$13.2 billion in 1951 to \$18.8 billion in 1960. The annual rate of growth of exports from the less developed countries to the industrially advanced countries was about the same as the annual rate of increase of the gross domestic product (3.7 per cent) of the latter group of countries. The exports of the developing countries to the centrally planned economies (U.S.S.R., Eastern Europe, Mainland China, Mongolia, North Korea and North Viet-Nam) increased from \$0.5 billion in 1951 to \$1.0 billion in 1959. In the nineteen fifties, on the average, exports from the underdeveloped countries to the centrally planned economies amounted to 7.3 per cent of the total imports of these economies. As an approximation, for the purposes of the present hypothetical exercise, this level is assumed to remain unchanged at the end of the nineteen sixties.

An attempt can now be made to link the past relationships with the target of 5 per cent annual increase in gross domestic product of the developing countries at the end of the United Nations Development Decade.

However tentative the result must necessarily be, it may help to assess the broad implications of the goal established by the UN General Assembly.

To start with, it is assumed that in the first half of the nineteen sixties the gross domestic product of the developing countries would increase at the same annual rate as in the nineteen fifties -- namely, 4.65 per cent -- but thereafter it would accelerate by a constant fraction every year so as to reach the United Nations Development Decade target of 5 per cent in 1970. The hypothetical level of gross domestic product in 1970, in other words, would be more than two-thirds larger than the actual level in 1959. It is further assumed that, in order to reach the target rate of growth, gross domestic fixed capital formation would increase at a rate implicit in the relationship observed in the nineteen fifties between gross domestic product and fixed investment. Forces would, of course, be at work which would tend to change the relationship between output and investment in individual countries in different directions; but at the level of aggregation of the present illustrative exercise, it is not unreasonable to assume that on balance these individual forces would cancel out and that for the developing countries as a whole the relationship would remain unchanged. Given this postulate, the level of gross domestic fixed capital formation would have to increase from less than 16 per cent in 1959 to over 17 per cent in 1970.

The rapid growth of investment in the developing countries would be reflected directly in requirements of imported capital goods. The high income elasticities for other commodity groups indicate that imports of these groups, too, would rise substantially. In other words, total import requirements would increase at a rate significantly higher than that of total output. Altogether, the ratio of commodity imports to gross domestic product, if all the relations turn out to be as assumed, would increase from rather less than 12 per cent to well above 13 per cent.

The hypothetical level of exports to the industrially developed countries in 1970 has been calculated by relating the probable income elasticities with the assumption that the gross domestic product of these countries would continue to increase at the same rate as in the nineteen fifties, that is, 3.7 per cent per annum. Given the differences in the magnitudes involved in the two sets of assumptions about imports and exports, the latter would obviously register a moderate increase compared with the sharp rise in the former. Moreover, since only fuels enjoy a relatively high elasticity of demand, the major gains from the expansion of trade would accrue to a handful of petroleum producing countries; trade in other primary commodities would show signs of relative stagnation.

The hypothetical level of exports to the centrally planned economies has been calculated on the assumption that the share of the less developed countries in the total import trade of these economies would

be the same as in the nineteen fifties, namely, 7.3 per cent. Although exports to the centrally planned economies would grow at a rapid rate, their share in total exports from the developing countries in 1970 would still be rather small.

Thus, the hypothetical increase in exports to the industrially developed countries and to the centrally planned economies, taken together, would not even be half as large as the hypothetical increase in total imports. The merchandise trade deficit would obviously be the largest element in the growing external imbalance of the less developed countries; it is estimated to amount to \$12 billion in 1970.

Another factor contributing to the external imbalance would be the increase in net payments for investment income and for other services. The hypothetical levels of these two categories in 1970 have been estimated by relating them to the expansion of total exports and imports, respectively. Net payments for investment income and other services would double by 1970. The initial gap on current account, including merchandise trade and services, is estimated to equal \$20 billion by 1970.

In assessing the magnitude of external imbalance, however, account must also be taken of the increase in the net inflow of long-term capital and official donations that would take place if the past trends were to continue. For calculating the hypothetical level of long-term private capital, it is assumed that the 1956-59 average in relation to the level of exports of fuels and base metals to the industrially advanced countries would remain unchanged in 1970. For official donations, the hypothetical 1970 estimates are derived by linear projection of the straight line connecting the mid-points of their 1951-1955 and 1956-1959 levels. Finally, official loans are assumed to increase at the same percentage rate as in the past. Under these assumptions, the net inflow of foreign funds in 1970 works out to be \$9 billion as against \$5 billion in 1959. It should be noted, however, that the net inflow was already \$6 billion in 1960 and that in 1961, according to the preliminary estimates, it would be close to \$7 billion. Viewed against these facts, the hypothetical increase by 1970 does not appear large.

Putting the aforementioned results of the illustrative exercise together, it can be seen that the hypothetical initial gap on current and long-term capital account which would require to be covered through policy measures in the developing countries as well as in the rest of the world would amount to \$11 billion in 1970.

At first glance, the magnitude of the hypothetical balance to be covered by policy measures -- \$11 billion -- may look too large to overcome by realistic policy measures. It would not be quite realistic, however, to pass judgment on the size of this estimate or any other estimate for 1970 through the economic yardsticks of 1959. Given international good will and cooperation, it should be possible for the developing

countries and the rest of the world to devise appropriate measures for meeting the challenge represented by such a deficit of \$11 billion in 1970.

A study of the appropriate policy measures required lies outside the scope of this introductory paper. The aggregative basis on which the exercise has been carried out, while highlighting the order of magnitude of the deficit in external accounts which recent trends portend, is inadequate for purposes of considering the effects of policy measures: these require detailed examination within the framework of the development plans of individual countries. The most that can be done at the level of aggregation employed in this chapter is to postulate certain simple changes in the underlying conditions and assess their effects on the assumption that all other relationships hold constant.

The first illustrative adjustment concerns the sphere of domestic policy measures in the developing countries; it indicates that one possible approach for reducing the external imbalance might be to seek still further economies through import substitution. While the range of feasible import substitution cannot be estimated with any degree of accuracy, it is interesting to see what the saving in foreign exchange requirements would be if the ratio of imports to gross domestic product in the developing countries were to remain the same as in the last part of the nineteen fifties. Under the assumptions made, there could be a reduction in import requirements for 1970 of the order of \$3 billion.

Another possibility of improving the balance might emerge through improvements in the international environment. If the growth rate of the industrially developed countries, instead of increasing at the past rate of 3.7 per cent per annum, were to rise at the OECD target figure of 4.2 per cent per annum, the import demand in the industrially developed countries arising from this increment, other relationships remaining unchanged, would contribute an additional \$2 billion to the foreign exchange receipts of the developing countries in 1970.

Yet another possibility of reducing the external deficit would be through a combination of national and international measures that affect the balance on services account. It is of course difficult to figure the net favourable result from such factors. For illustrative purposes, the hypothetical exercise has assumed a notional figure of \$1 billion on this account.

Finally, it might also be argued that there would be further expansion in the international flow of capital to the developing countries. The General Assembly has called for an increase in such flow so as to reach as soon as possible approximately one per cent of the combined national incomes of the economically advanced countries. If, as a result of the efforts stimulated by the General Assembly resolution, there is (say) an additional 10 per cent increase in the hypothetical level of the net inflow of long-term capital and official donations derived by extrapolating past trends, this would add \$1 billion to the supply of foreign exchange available to the developing countries.

Altogether, these illustrative adjustments would contribute \$7 billion. There would, nevertheless, still be a hypothetical gap in the balance of payments of the developing countries amounting to \$4 billion. In the expanded world economy of 1970, it should not be beyond wise economic statesmanship to cover such a remaining gap through additional national and international policy measures. At the national level, the developing countries might, for instance, be expected to intensify their export-promoting and import-substituting activities. At the international level, a wide range of policy measures is under discussion for achieving high and stable levels of international trade; such programmes of trade expansion occupy a prominent place on the agenda of the forthcoming United Nations Conference on Trade and Development. Emphasis has been placed on measures for promoting the consumption in the advanced countries of agricultural and other primary products exported by the less developed countries. Measures are also being sought for reducing quantitative and tariff barriers on such exports. Considerable attention has also been given to measures for encouraging exports of manufactures and semi-manufactures from the developing countries. Such measures, if adopted and implemented with vigour, should lead to a further improvement in the international economic environment and close the gap in the balance of payments that might otherwise be associated with an acceleration of the rate of economic growth of the developing countries.

INCREASING ECONOMIC GROWTH AND EMPLOYMENT

ECONOMIC DEVELOPMENT AND THE SECTORAL EXPANSION OF EMPLOYMENT

Walter Galenson

[From "Economic Development and the
Sectoral Expansion of Employment";
International Labour Review, International
Labour Office, Geneva, Vol. LXXXVII, No. 6,
June 1963, pp. 505-519.]

[These excerpts present the main findings of a study undertaken by Professor Galenson during a recent period of service with the International Labour Office. Readers interested in the statistical data on which Professor Galenson's analysis is based are referred to the complete article, where they will find comparative series for 25 countries at various stages of development showing average annual percentage changes in employment by major economic sectors; increases in employment by sectors; ratios of manufacturing employment to tertiary employment; and average annual percentage increases in manufacturing output and tertiary employment.]

These are
excerpts
from the
article.

The literature of economic growth typically pays little attention to problems of employment as such. Capital is generally regarded as the limiting factor of production, and the discussion tends to concentrate

Walter Galenson is Professor of Business Administration and Economics at the University of California, Berkeley, and a member of the research staff of the University's Institute of Industrial Relations.

on investment as the dynamic element in the growth process. It is usually assumed that the requisite supply of labour will be forthcoming from the reservoir of surplus workers found either in the cities or on the land. Economic development, and particularly the growth of manufactures, is relied upon eventually to create sufficient employment opportunities to soak up the unemployed and the underemployed, as in the case of developed nations which maintain a high level of economic activity.

When desired levels of employment are introduced as independent variables, there is a tendency for the argument to concentrate on manufacturing, since it is this sector to which the lion's share of new investment is normally allocated. This is not entirely true, since consideration is sometimes given to the employment potential inherent in the expansion of construction and agriculture, though the latter is most often regarded as a supplier of labour to other sectors. But, the frequent discussions of choice of technique, of labour intensity versus capital intensity, generally draw their illustrations from manufacturing. Underdeveloped nations are told to examine critically the machinery and techniques used in developed countries with greatly differing factor proportions. Small-scale and handicraft industries employing little capital, or machinery for large establishments specially designed to require a large labour component, are suggested as promising avenues towards fuller employment.

I have no quarrel with these objectives, subject only to some considerations below. But, the argument that I wish to advance is that too little attention has been paid to those sectors of the economy in which the bulk of the new jobs are likely to be located, namely commerce and services. This does not mean that manufacturing is unimportant; on the contrary, it is, in my estimation, the key sector for economic growth. Under conditions of modern technology, however, its role is not likely to be that of a major source of new employment. Rather, it will tend to generate the effective demand leading to employment expansion in other sectors. This multiplier effect is apt to be much more significant than any direct contributions that the manufacturing sector can make to the alleviation of mass unemployment.

The normal path of economic development involves an expansion of the manufacturing sector, where value of output per worker is likely to be higher (in underdeveloped countries, considerably higher) than in the economy as a whole. The additional product generated by the manufacturing sector results in an increase in the effective demand for the goods and services of the other sectors, and thus permits an increase in employment in those sectors. This may be termed the employment multiplier effect of increased manufacturing output. At the same time, a modern economy seems to require a certain minimum superstructure of commercial, governmental, and other services to support manufacturing;

that is, there may well be certain fixed technological relationships between jobs in manufacturing and supporting services elsewhere. The stability of this relationship gives rise to what may be called the structural effect. Both effects are necessary to afford an explanation of the phenomena described above, but they may not be of equal importance as dynamic elements.

In my view the critical factor in most development situations is the rate of growth of manufacturing output. This is not at all to say that effective demand cannot be generated by other sectors. Rapid productivity increases in agriculture can give rise to the necessary increase in effective demand; this appears to have been the key to early Japanese development. The transportation sector, a large merchant marine for example, can generate demand. But it is the manufacturing sector in which both the volume of output and the productivity of labour are likely to increase most rapidly, and it is quite understandable that economic planners accord priority to the development of manufacturing industry. There is a natural reluctance to pin hopes on agriculture, which in most countries offers at best the prospect of slowly growing yields combined with declining employment.

The question may be raised whether the additional tertiary employment that appears to accompany the growth of manufactures in underdeveloped countries is employment, or whether in fact it is merely a reflection of urbanisation. Are not the myriad of traders, automobile watchers, shoe shiners, domestic servants, etc., commonly to be found in developing nations really unemployed, or so grossly underemployed as to merit classification as unemployed?

If people are engaged in activities which enable them to support themselves, it seems difficult to argue that they are not gainfully employed, no matter what one may think of the nature and intensity of their tasks. Such activities as petty trade and hand transport are functions which have to be carried on in a capital intensive manner in more developed economies; supermarkets replace the pushcart and trucks the bicycle; while the cobbler, the barber, and the tailor ply their trades in comfortable shops rather than on the sidewalks. The operator of an electronic calculator in a modern commercial bank and the money changer in a bazaar are both performing banking services. And who is to say that seven hours spent in watching a dial which controls an automated line is a fuller day's work than ten hours of walking about in a hot sun seeking to sell trinkets to unwilling and elusive consumers? The productivity of the two occupations may be quite different, but comparative productivity does not provide a criterion for degree of employment except in some general and not very meaningful sense.

Where tertiary employment is measured as a residual, as the difference between the active labour force and the sum of primary and

secondary employment, then it obviously includes the unemployed and thus overstates the actual level of tertiary employment. Here, indeed, any accretion to the urban population of people of working age would automatically be reflected in the employment figures. Whether this practice is followed in fact can only be determined by examining the statistical system of each country involved. But even in this case, before assuming the existence of vast unemployment which completely destroys the meaning of tertiary employment, one must ask this question: in the absence of public or private charity, how do all of the presumptively unemployed keep alive?

Conclusions

The following observations, summarising the foregoing analysis, are intended to be suggestive and not definitive. A great many more data are needed, and much more research must be undertaken, before hard policy conclusions can be drawn. It has been my intention only to draw attention to a neglected aspect of employment, and to point out some types of relationships which may help provide a suitable framework for analysis. If what follows seems more positive than the statistics seem to warrant, it is only because I do not want to encumber the text by repetitious qualifications.

1. It is not in the manufacturing sector of newly developing countries, but in the tertiary sector, that the bulk of the new employment is likely to be located. This does not mean that there will be no new factory jobs, but rather that for every additional hundred workers in manufacturing there may well be a substantial multiple of this number added to the labour force in commerce, construction, transportation, and services, the actual multiple depending on the initial size of the manufacturing sector and its relative productivity.

2. In most developing economies it is the growth of the manufacturing sector which is apt to be the dynamic force in generating new employment. The more rapid the rise of manufacturing output (and of manufacturing employment, if output per worker remains at a relatively high level) the more employment can be afforded by the tertiary sectors. However, an increase in manufacturing employment accompanied by a proportional decline in the productivity of manufacturing labour, so that output remains constant, is not likely to give rise to a good deal of additional tertiary employment. Agriculture, mining, commerce, and even services could conceivably play the same role as manufacturing in generating effective demand and employment, but it does not appear from the events of the past decade that they are likely to do so in most developing countries.

3. The promotion of employment is best pursued by ensuring a rapid growth of manufacturing capacity and output. Using highly

labour-intensive techniques in manufacturing may create more jobs in the manufacturing sector, but if this is accomplished at the expense of immediate production or of the rate of growth of manufacturing capacity, there may be an offsetting loss of job opportunities in tertiary employment. In approaching the choice of manufacturing technique with employment creation in mind, it is important to add another dimension to the analysis: the impact on tertiary employment. If, as might well be the case in certain circumstances, it seems socially desirable to sacrifice a portion of manufacturing output through the use of labour-intensive techniques, in order to relieve unemployment, such policy might prove irrational unless the new manufacturing employment offset the tertiary employment foregone as a consequence of the diminished output.

4. New factories in developing economies tend to employ proportions of labour and capital not far different from those in developed nations. This has been ascribed to diverse causes: unthinking emulation of the most advanced production techniques by engineers trained in developed countries, the failure to develop specialised labour-intensive machinery, the desire to be "modern," the social and political desirability of minimising urbanisation, and many others. If it should become evident, on further examination, that under conditions of modern technology and rapid growth of manufacturing productivity, the capacity of the manufacturing sector to absorb new employees is quite limited, then a great deal of the current discussion of choice of technique in manufacturing is misplaced. Perhaps the tertiary sector, far from shrinking during the course of development, as is often assumed to be the case, may turn out to be the principal means of affording employment to many individuals for whom the future appears to hold little promise at the present time.

INCREASING OUTPUT AND EMPLOYMENT
WITH EXISTING CAPITAL ASSETS

W. B. Reddaway

[From "Self-Help and External Assistance,"
Bombay, The Economic Weekly, Fourteenth
Annual Number, Volume XV, Nos. 4, 5 and 6,
February 1963, pp. 217-220.]

[While dealing with current problems of inadequate production and employment in India, these excerpts from Professor Reddaway's article contain suggestions relevant to other less developed countries confronted with similar difficulties of trying to make the most effective use of limited capital available for development purposes. The remainder of Professor Reddaway's article not reprinted here discusses India's special problems relating to its balance of payments and external assistance.]

Excerpts
from the
article
begin on
the next
page.

Professor Reddaway was in India for a year under the auspices of the Center for International Studies of the Massachusetts Institute of Technology (MIT). Working in cooperation with the Delhi branch of the Indian Statistical Institute, he produced a detailed model of the Indian economy representing the relationships and magnitudes of the Third Plan (1961-66). His analysis of the structure and problems of the Indian economy and a description of the Third Plan model are contained in his book The Development of the Indian Economy (Richard D. Irwin, Inc., 1962), which is the first in a series of MIT studies dealing with this general subject. The ideas presented in the article excerpted below are also based upon Professor Reddaway's work in India.]

W. B. Reddaway is Director of the Department of
Applied Economics of the University of Cambridge.

India has, of course, abundant supplies of labour, at least of unskilled types, but this is not sufficient to ensure a rise in output even if there is plenty of demand, because other "co-operating factors" are needed to work with the labour. The traditional one to take is capital -- i.e., real capital equipment: nothing much can be done with bare hands alone. Hence the stress on the vicious circle of poverty: when incomes are as low as they are in India, it is difficult to set aside enough from them to provide for the equipment of the growing population, let alone to secure the better tools with which incomes in future years could be increased. Hence, also, the call for capital to be supplied from the developed countries to break this vicious circle -- or rather to help in breaking it, since elementary arithmetic shows how vast the sums would have to be, by the standards of international aid, if everything were to be supplied from abroad.

Nevertheless, although capital clearly plays a vital part in the process of development, there are powerful objections to attributing everything to scarcity of capital. In some ways, it exaggerates the problem; in others, it makes it appear too easy. And, it hides some of the many ways in which Indian people can make an important contribution themselves.

Other Needed Factors

On reflection, the need for doing other things besides increasing the supply of capital is fairly obvious. The expansion in the output of anything depends not only on the provision of the necessary capital, but also on adequate supplies of all sorts of other things which cannot be taken for granted in an underdeveloped country. Skilled labour, management, raw materials, components, power and transport are some of the generally needed factors of production, which may cause even more acute difficulties in particular cases than the supply of capital. Of course, they do not all have to be supplied from India's own production: imports can prove extremely helpful in overcoming some of the supply difficulties, provided that the foreign exchange can be secured. But imports, even if we stretch the term to cover imported technicians, etc., cannot overcome all kinds of shortages (e.g., of power) and, in view of the foreign exchange difficulties, it is obvious that there must be a great deal of "balance" between the various Indian industries if any of them are to function efficiently. Otherwise, factories which could function efficiently are liable to be working below capacity for lack of materials, power or imported components.

Saving on Capital

In what ways, then, does the "shortage of capital" thesis exaggerate the difficulties of raising India's national income? The answer may be put in very summary form: by ignoring the possibility of raising

the output from existing capital assets. There are really two parts to this statement. In the first place, some capital assets (e.g., textile mills) are liable to be used below their full capacity because of inadequate demand, and the level of utilisation would be raised almost automatically if demand increased. The vast capital embodied in stocks held by distributors provides another example -- a certain level of stock is essential if the process of distribution is to be efficient, but the amount actually held could and would support a much higher level of turnover if demand increased. But, in large part, the possibility of raising output from existing capital springs simply from the fact that the existing capital is not efficiently utilised, and this defect can be cured if, and only if, better methods are introduced.

This last statement needs amplification in several directions. Let me start by emphasising that what is required in India's case is predominantly the introduction of methods which will raise the output from the existing plant, and not ones which are aimed at producing the same output with less labour. Western economists tend to think of "efficiency" so much in terms of output per man that it has come to be associated almost exclusively with methods of reducing the number of men needed to produce a given result. Even if one is concerned with raising output per man, however, this can be achieved by securing a higher output from a given labour force in a factory, just as effectively as by reducing the number of men in the team and producing the same output. In Indian conditions, where labour is abundant and capital scarce, the first method is clearly the one to be preferred, and we will in general also be anxious to increase the output from the factory even if this requires a proportionate (or even more than proportionate) increase in the number of men.

There is, of course, nothing profound about this statement, but its implications are nevertheless of the highest importance. An economic plan is concerned to raise the output of the various products in a suitably balanced way by a certain target amount. If this can be done by raising the output of (say) the steel mills which have already been erected, so as to enable them to produce at 100 per cent of their rated capacity instead of some lower figure, then this obviates the need for heavy capital expenditure on new mills. The plan can be achieved correspondingly more easily -- or perhaps enlarged.

The work of mastering how to get the full output from a mill which has been installed will usually seem much less glamorous than the work of preparing the plan for the mill, announcing its location, laying foundations, and finally staging a ceremonial opening. Nevertheless, this rather humdrum task is an essential part of the whole process, and deserves at least as much care and attention as the others. In part, no doubt, it will be achieved by providing an adequate supply of some of the other "co-operative factors" mentioned above, and this will frequently

require advance preparation in just the same way as advance planning is needed for the creation of the physical assets. This is obvious where new railway lines have to be laid, but it is just as important where it is a matter of training the necessary personnel.

Multiple Shifts

Having taken my example from a newly constructed plant, let me hastily add that the same principle applies just as much to the old plants. Increased output from these may just as much avert the need for new capital to be devoted to that industry, or at least keep down the amount. A simple method which may apply in many cases is the introduction of multiple shifts, so that the plant works for more hours in the day -- and perhaps one should add, on more days in the year. In such cases the output may not rise fully proportionately to the increased number of man-hours, but the change would nevertheless benefit the national income, and very probably the profits of the proprietor also. The initial difficulty of organising the extra shift should not be allowed to outweigh these continuing benefits.

The principle is, moreover, very far from being confined to manufacturing industry. One obvious place where it would be most desirable to introduce better methods, so as to raise the output from the existing plant, is on the railways. If better working could enable trains to move faster and more trains to move along a given track in an hour, all sorts of economies in scarce capital would be achieved. The amount of work done by a given amount of rolling stock in a year would obviously be increased if trains moved faster, and would be further increased if the delays at marshalling yards, etc., were shortened. The passage of more trains per hour along a track might obviate the need for laying additional tracks in order to cope with rising traffic. The shorter time spent by goods on the railway would reduce the amount of capital locked up in "stocks in transit," and a speedier service might also reduce the amount of stock which industrialists thought it necessary to hold in reserve in their warehouse.

Agriculture

More important than all the above cases put together, however, is the possibility of raising the output of agriculture by the introduction of better methods. This is a subject on which I am not well qualified to write, and I have summarised what I think that I learnt from others in Chapter 4 of The Development of the Indian Economy. But, I would like to re-emphasise the fact that my reference to increased efficiency in agriculture means the raising of output per acre, rather than the output per man or the output per man-hour worked. The greater use of fertilisers, for example, is likely to mean that more employment is

"provided" on each acre of land, both for spreading the fertilisers and for tending and harvesting the larger crops. The primary object is to secure greater output, rather than greater employment, but some of the latter will also be incidentally provided. With so much under-employment in the Indian countryside, the case for using scarce capital to reduce the amount of labour needed to yield a given result (e.g., through the use of tractors) is extremely weak, but increased efficiency can mean both increased output and more employment.

FINANCING OF DEVELOPMENT

MOBILIZING DOMESTIC SAVING FOR PRODUCTIVE INVESTMENT

[From Economic Bulletin for Asia and the Far East, United Nations Economic Commission for Asia and the Far East (ECAFE), Bangkok, Vol. XIII, No. 3, December 1962, US\$0.50.]

[This issue of the ECAFE Bulletin contains three very useful articles on the financing of development. The first -- whose main findings and recommendations are presented below -- contains hitherto unpublished data derived from direct surveys of the rates and structures of domestic saving in the ECAFE region and makes specific recommendations for increasing the flow of savings into productive investment. The second article analyzes in detail the fiscal policy measures required for increasing government savings. The third article presents statistical data on the flow of foreign capital, private, governmental and international, into the ECAFE countries during the past decade, and discusses policies and measures for increasing the inflow of foreign capital and improving its use in the years to come.]

These are excerpts from the original article.

High rates of economic growth have long been associated with high rates of investment and saving. Although theoretically investment can be financed by any mix of domestic and foreign capital, historically domestic sources have generally supplied the bulk of saving for rapidly developing economies. Even if an underdeveloped economy has access to a substantial volume of foreign saving, a permanent advance in the nation's growth rate requires a continuous expansion in the rate of domestic saving as well as a refinement in the mechanism that allocates saving.

Information on the rate and composition of saving in the ECAFE region has been greatly augmented through a series of direct estimates of saving recently completed. The secretariat of the Economic Commission for Asia and the Far East has requested all ECAFE countries to undertake a direct estimate of saving. At the time of writing, seven countries have already completed these studies -- Ceylon, China (Taiwan), the Federation of Malaya, India, Japan, South Korea and the Philippines -- thereby demonstrating the feasibility of making direct estimates of saving in this region. It is hoped that in the near future the remaining countries will have embarked upon such studies. The importance of direct estimates of saving derives from the fact that when saving is calculated indirectly -- i.e., as a residual balancing item between income and expenditures -- the result is not generally accurate. More important, since the indirect method shows only one aggregate figure of national saving, it cannot yield the data on forms of saving, which are rich in implications for saving composition, structure, destination, etc.

Rates of Saving

Rates of saving obtaining in ECAFE countries for which we have direct estimates of saving are not high. Gross domestic saving as a proportion of gross national product varies widely -- from below 5 per cent for a few countries to nearly 30 per cent for Japan. But the majority of ECAFE countries for which we have direct estimates appear to be accumulating gross saving at rates of between 10 to 13 per cent. This means that their rates of net domestic saving are decidedly below 10 per cent -- in practice probably 6-9 per cent. While there is no precise minimum rate of saving required for rapid growth, a rate of net domestic saving of at least 10-12 per cent would probably be regarded as desirable by most analysts. On that basis most of the ECAFE countries (excluding Japan) have a rate of net saving below minimum requirements. Nor have we assurance that this situation is improving. Although the period for which we have direct estimates of saving is admittedly short, favourable trends are generally difficult to find.

Structure of Saving

A number of inferences can be tentatively drawn from the data on savings structure in the region.

The government sectors of most countries (including Japan) show wide variations in their contributions to total domestic saving and, in some countries, the relative contribution of the government sector is not large. In particular, the relative contribution of government enterprises to government saving is disappointingly low in most countries, even in those which have deliberately emphasized a "mixed economy" approach to industrial development.

Saving in the corporate sector accounts for as much as 30 per cent of gross domestic saving in Japan, South Korea and the Philippines, while for other countries in the region it is very much less, and as low as 6 per cent in China (Taiwan) and India. Excluding Japan, the two countries where the contribution of the corporate sector is highest (South Korea and the Philippines) are also the two countries which show the lowest relative contribution of the government sector.

Households account for half or more of gross domestic saving in all countries surveyed and, in some countries, the proportion rises to two-thirds. The relationship of household to total gross domestic saving is fairly constant in most countries except those (Ceylon and the Federation of Malaya) where household income is heavily dependent on the export receipts of one or two primary commodities. For two countries (Japan and the Philippines) for which we have detailed data by sector, the share of household saving in domestic saving rises when we shift from a gross to a net basis.

In sharp contrast to more developed economies, households in the ECAFE region (excluding Japan) save about one-half, and sometimes substantially larger portions, in the form of tangible assets.

Comparisons of rates of household saving for ECAFE countries (excluding Japan) indicate that in these countries households generally save (gross) well below 12 per cent -- and probably between 6-9 per cent on average -- of disposable income. On the other hand, while the rate of saving in financial assets is low by more advanced countries' standards (say, Japan or the United States), the rate of saving in tangible assets may possibly be about the same or greater, especially if under-coverage in ECAFE data on this point is allowed for. In any event, the unmistakable implication of the available data is that the deficiency in household saving rates applies primarily to saving in the form of financial assets.

With the exception of Japan, households in the ECAFE region transfer, either directly or indirectly through financial institutions, one-half or less of their saving. This also is in sharp contrast to more highly developed countries where two-thirds or more of household saving is transmitted to other investors. Again, one structural pattern which all observed households share (including those of Japan) is a distinct preference for transmission of saving indirectly through financial institutions over transmission directly to investors.

In general, voluntary saving accounts for one-half or more of household saving. Both contractual and compulsory savings appear to be growing rapidly in a number of ECAFE countries as a result of the institution of government life insurance and pension fund schemes. Compulsory and contractual forms will probably continue to claim an increasing share of household saving in future. However, for the foreseeable

future, most countries in the area must proceed on the assumption that half or more of household saving will continue to assume a voluntary form.

Households' preference for saving in the form of tangible assets is clearly associated with the almost primitive stage of development of capital markets in many ECAFE countries. Saving in the form of insurance and pension funds is in its infancy, and organized security markets do not even exist in some of the countries. Even where they do, their small size and volatile character usually preclude them from making a significant contribution to development financing. This state of affairs obviously puts a limit on the volume of financial flows which the system can mobilize for investment in the corporate and government sectors.

Recommendations

Accordingly, recommendations have been broadly focussed on two major points:

- To raise saving in the corporate sector as much as possible by making it profitable for enterprises to reinvest a larger portion of earnings.
- To develop household saving in the form of financial assets by making them more competitive with tangibles in terms of (a) availability, (b) design and (c) yield.

A number of specific recommendations have been embodied in the text of this report to achieve as far as possible the changes in saving structure which it is believed would contribute substantially to the mobilization of saving and the finance of investment along more constructive lines. In brief, the major items are:

1. Creating conditions favourable to growth of household saving in (long-term) financial forms -- insurance and pension funds, investment trusts, etc. -- both by changes in existing legislation (e.g., elimination of double taxation on dividends of these institutions), as well as by sponsoring of new legislation putting government insurance and pension funds on a compulsory basis.
2. Creating conditions essential for development of an active market for corporate securities -- even if small -- consisting of rapidly growing financial intermediaries and the more wealthy households.
3. Expansion and improvement generally of financial institutions in the capital market which can facilitate shifts of saving from households to the corporate and government sectors.

4. Foundation of investment trusts where the security markets are sufficiently developed and particularly where inflationary conditions have made distribution of debt instruments difficult.

5. For the more developed countries in the ECAFE region, the establishment of private development banks which have as their primary function increasing the supply of long-term finance to the corporate sector, and which can be counted on to assume leadership within the private financial community in developing those aspects of the local capital market in a manner most conducive to the growth of investment in the corporate sector.

6. A more flexible policy of interest rates so that government securities can be designed in terms of both yield and other dimensions (e.g., maturities, liquidity aspects) to compete more effectively with other financial instruments and gradually enter private sector investment portfolios (especially non-banking institutional portfolios) on a larger scale.

7. Fostering the growth of the corporate sector vis-à-vis the unincorporated sector.

8. Adoption of tax policies which will make it financially advantageous for firms, especially corporations, to reinvest a larger portion of earnings.

9. Enactment of legislation requiring full disclosure of essential financial information by all business concerns (corporate and non-corporate) and particularly upon flotation of securities to the public.

10. Expansion of commercial (deposit) banking as rapidly as possible, including the expansion of branches in rural areas.

11. Expansion of investment trust operations of commercial banks to make them instruments for mobilization of medium- and long-term funds as well as short-term funds.

12. Adoption of the term-loan by commercial banks with the aim of undertaking a larger share of medium-term finance while not endangering their liquidity.

13. Raising the professional competence of officers of financial institutions in order to bring about the use of more rational criteria in allocating credit -- both short- and long-term.

THREE SUCCESSFUL DEVELOPMENT BANKS
IN THE MIDDLE EAST

Victor E. Rockhill

[From "The Role of Private Financing and Development
in the Middle East," The Developmental Revolution:
North Africa, the Middle East and South Asia;
published and copyrighted ©1963 by the Middle East
Institute, Washington, D.C., US\$4.00, pp. 248-260.]

These are
excerpts
from the
book.

Most of the developing countries wish that more private investment capital -- local and foreign -- were available to them. But there are limiting factors that simply cannot be ignored. One is political instability. Another is the lack in many of the developing nations of adequate financial machinery and institutions, such as stock exchanges, that are needed to channel private savings into new business ventures. The low per capita income also means that local markets are limited to a relatively narrow range of goods. And, where potential export markets exist, they are often far away or cannot be entered with manufactured goods that can compete in price with those already available. We also find a severe shortage of technology and mechanical skills, of experienced management and modern business practice. Without these vital adjuncts, capital alone cannot make for sound investment.

However, we must also recognize factors that are operating for improvement. The development projects that are going on today are largely of a basic nature and they are forming the foundation for more advanced and diverse enterprises. More sophisticated financial communities are coming into being and private investment practices are becoming less and less inhibited by traditional ways. Technology is being introduced, managerial skills are being developed, and local markets are growing.

Victor E. Rockhill is President and Chief Executive
Officer of the Chase International Investment Corporation.

[These and other factors have encouraged the establishment of several development banks and joint ventures, including local and foreign private investors.] The more successful of these banks in the Middle East have been those that are owned and managed as private enterprises. I will describe three, but first I should like to make some generalizations about aims and methods.

These development entities are not banks in the commercial banking sense -- no one has a checking account with them; development corporation is probably a more accurate name. They assist the private sector by providing long and medium term financing through loans and equity participation. They also help to create or expand capital markets, as we know them in the developed countries, by underwriting capital offerings for public subscriptions and by educating the public to the advantages (and disadvantages) of employing part of their savings in purchasing stock of industrial enterprises or of companies developing natural resources.

Such institutions usually have available to them both local funds, used for acquisition of plant sites and local building costs, and foreign currencies, used for the importation of machinery, equipment and technical know-how. In addition to assisting local companies to expand their operations, these corporations devote a large portion of their talents to helping new projects get underway. In some instances, they will on their own initiative seek out areas of industrialization which have not been tried and promote projects which they consider economically sound and feasible for the particular country.

Another element that is inherent in many development corporations is the strength added to the whole by participation of foreign capital. The foreign capital provides not only money, but experience and know-how. The local shareholders can examine the record of the foreign partners because usually the foreigner is well known internationally, having already established a good reputation. Also, the presence of the foreign shareholder permits the local management to resist more easily local political pressures. Even if the development corporation is well run, its management faces the hazard of political attack when it declines to finance projects which, while ostensibly of a private nature, are being promoted with support of political interests.

One example of a well-run private development corporation is the Pakistan Industrial Credit and Investment Corporation, known as PICIC. It was established in 1957 and conforms in general with the objectives and characteristics which I have outlined.

Its share capital is the equivalent of nearly \$6.5 million, of which 60% has been subscribed by private shareholders in Pakistan and 40% by shareholders in the United States, Canada, the United Kingdom, Japan, and West Germany. At the end of 1962, its total resources were the equivalent of \$101 million.

Besides its capital, it had borrowed by the end of 1962 approximately \$30 million from the World Bank and \$52 million from various countries acting separately. During its five years of operation, PICIC has approved 318 loans amounting to the equivalent of \$84 million and has acquired a large portfolio of shares of other companies. In addition, it has underwritten capital issues for public distribution and has assisted in bringing into Pakistan an additional \$10 million equivalent in foreign investment. In February of this year, the World Bank allocated another \$20 million to PICIC, and more recently the International Finance Corporation agreed to buy new shares issued to expand PICIC's borrowing base. Up to the present, PICIC's activities have been divided about equally between assisting existing enterprises and aiding the formation of new enterprises.

The largest share of PICIC's loans has gone to the textile industry -- cotton, jute, and wool. Next in importance is the food products industry, including sugar, vegetable oil, flour, food and fish canning, cold storage and freezing. The list continues with mechanical and electrical engineering, chemicals and pharmaceuticals, cement and building materials.

PICIC attempts to allocate its financial commitments in a manner that will contribute most effectively to the balanced economic growth of Pakistan. For instance, while cotton has long been a crop of great importance, the traditional pattern was for the raw material to go to India for processing into cloth and yarn. With the partition of the two countries, Pakistan had to establish its own facilities. PICIC has so far assisted 31 cotton mills, and nearly 23% of its loans have been to the textile industry. From the point of view of foreign exchange, jute is Pakistan's most important industry. PICIC has financed six jute mills in its programs of modernization and expansion. Pakistan ranks fourth among the sugar-cane producing countries of the world, but there has been a tremendous need to increase refined sugar production. PICIC has, therefore, financed the expansion of three existing mills and has financed the entire foreign currency cost of a new mill. It has approved loans to two more mills which will be established in the future.

Because construction material is so vital to a developing country, Pakistan attaches understandable importance to its cement industry. PICIC accepted the challenge to improve cement production by engaging foreign experts to survey the sources of raw materials and available markets, and to determine the technical feasibility and profitability of manufacturing facilities. It is now helping to establish three new cement plants with a capacity to meet nearly one-fourth of the total demand envisioned by the end of the Five-Year Plan in 1965.

Probably the oldest of the major development banks in the Middle East is the Industrial Development Bank of Turkey, which was formed in 1950. An interesting aspect of this institution is that, at its inception, the entire equity capital was subscribed by Turkish private interests. It has

had the good fortune from the outset of having excellent management, and after some years of operation it was able to seek additional equity from abroad, with a favorable record as one of the inducements.

In addition to working with its own funds, the Industrial Development Bank of Turkey has been the administrator of a number of different programs, the funds for which have come from various governmental sources outside Turkey. For example, at the end of 1962, it was administering \$5.8 million of World Bank loans, \$7.4 million of funds from the U.S. Government's Agency for International Development and the equivalent of approximately \$15 million in Marshall Plan counterpart funds. The latter is in Turkish lira generated by the sale of commodities by the U.S. Government to Turkey.

Recently, the International Development Association (the World Bank affiliate) allocated \$5 million to Turkey which will be channeled through the Industrial Development Bank to very small shops and industries. This is a low-interest loan with a final maturity of fifty years with no amortisation over a ten-year period.

The number of loan requests which this bank processed in 1961 was large, partly because applications are welcomed for very small transactions. It recorded 515 applications which resulted in 490 commitments having a total value of \$42 million. In 1962, the applications were 564 and the total value of the 544 commitments made was \$54 million.

Because of the shortage of funds in Turkey, the Development Bank has found it necessary to engage in short-term financing which is not a role normally filled by development banks. At the end of 1962, the Industrial Development Bank's portfolio included \$5 million of such loans, of which \$2.5 million came from counterpart funds.

As development banks go, the Turkish one shows a good earnings record. From a total income of \$26.7 million equivalent in 1962 it had net profits of close to \$10 million, of which \$3.8 million was paid out in a dividend. The dividend was 12% on par value, or a yield of about 6% on market value as the stock is selling at close to twice par value.

The third and last development entity I would like to mention is the Industrial and Mining Development Bank of Iran. It is of special interest to me because Chase International Investment Corporation owns shares in it.

This development corporation was created in 1959, as a privately controlled and privately operated institution. The idea was initiated by forward-looking members of the Iranian Government and was encouraged by the World Bank. Lazard Freres & Company and Chase International agreed to accept co-sponsorship of the Bank, to assist in the recruiting of a staff, and to provide guidance in establishing policies which the Bank could follow in carrying out its objectives.

The Government of Iran provided an interest-free advance of \$8 million, to be repaid over a fifteen- to thirty-year period. The Iranian Government also transferred to the Bank the equivalent of \$18 million of capital loans, to be managed by the Development Bank for a fee. The World Bank and U.S. foreign assistance agencies committed initial credits of \$5 million each. At the outset it was decided that the Iranian portion of the equity capital of the Bank -- 240 million rials, equal to some \$3 million -- should be offered as widely as possible to the Iranian public. As a consequence, the first truly public offering of shares was made in the country. It was fully subscribed by more than 1800 Iranian citizens. The remaining shares of 160 million rials (\$2 million) were subscribed by the co-sponsors and a group of outstanding European and American financial institutions and industrial corporations.

The Industrial and Mining Development Bank of Iran, then, has present capital funds and credits equivalent to \$24 million and is managing capital loans of \$18 million. Operations have been reasonably successful. Shareholders have received modest dividends. They will receive $6\frac{1}{2}\%$ for the last fiscal year, ended March 20, 1963.

The bulk of the Bank's activity is in making medium term loans, rather than working capital loans or equity investments. It accepts applications only if the amount sought is above \$65,000. As of last March 20th, the Bank had approved a total of 67 applications for loans in the amount of nearly two billion rials, equivalent to nearly \$27 million. This financial assistance has enabled private investors to undertake projects of a total cost more than three times as great.

The industrial lines to which the Bank gave financial assistance in the last year were: beet sugar, industrial electrical equipment, oil heaters and cookers, tires and tubes, radio assembly, sand and gravel, vegetable oil and soap, cardboard and cartons, spinning and dyeing of carpet yarns, and nuts and bolts. The Bank supplements its loans with advice to customers on technical, market, sales, accounting and financial problems. It has also found that a firm insistence on better-than-average capitalization enables its customers to withstand the stresses of uncertain and variable economic conditions.

One aspect of these three development corporations, common also to many other development corporations, is the broad spread of participation. Their capital, credits and loans derive from both local and foreign private shareholders, from both local and foreign governments, and from international agencies. That type of association tends to assure the cooperation and discipline of all parties that might be concerned; it also creates a sense of confidence that should be a source of encouragement to applicants and investors alike.

Another aspect is the concentration of assistance to relatively modest size ventures. They shun what is grandiose, but unrealistic; what is magnificently ambitious, but most impracticable; what offers prestige but not progress. They show an acute awareness of limitations as well as of possibilities.

The sorts of industries that do attract the financial aid of development corporations are those that serve a local need, or that provide for the optimum use of favorable local conditions. Agricultural improvements rank high on the list, including enterprises that will reduce waste of local resources by developing them better for either local consumption or to take advantage of export potentialities. This is true not only of food processing, but of textiles, where efforts are directed toward both improving the crop and establishing facilities for the manufacture of finished goods. Considerable attention is also given to the establishment of industries that contribute to basic construction. This, of course, is quite sensible, for an adequacy of building materials is vital to any nation that is in the early stages of modernization.

With the exception of a few major enterprises that are designed to exploit an unusual endowment of natural wealth, most projects tend to be relatively small and not overly sophisticated. They are intended to supply readily available markets close to the scene of manufacture and to provide employment opportunities for abundant local labor. Their efforts are centered on related industries, where the development of one will contribute to the advancement of another. The general pattern is one of integrating the various sectors of the economy to achieve a fairly uniform rate of progress. Perhaps all these assorted endeavors impress us as being exceedingly modest -- and in many instances they are -- but they are also realistic and practical, because most of these development schemes do represent a determination to achieve balanced growth.

The above material is copyrighted by the Middle East Institute of Washington, D. C., © 1963, but may be freely reproduced, except in the United States, where reproduction must be arranged with the Middle East Institute. This restriction must accompany each reproduction, and a complete credit citation must be given as follows:

From "The Role of Private Financing and Development in the Middle East," by Victor E. Rockhill, The Developmental Revolution: North Africa, the Middle East and South Asia; published and copyrighted © 1963 by the Middle East Institute, Washington, D.C.

THE ROLE OF SAVINGS AND WEALTH
IN SOUTHERN ASIA AND THE WEST

Edited by Richard D. Lambert
and Bert F. Hoselitz

[United Nations Educational, Scientific
and Cultural Organization, Paris, 1963,
432 pp., US\$4.50.]

This important book illuminates the underlying motivations, attitudes and beliefs which significantly affect the willingness and ability to save, to accumulate wealth, and to invest it productively. This major aspect of development is approached through detailed country studies of the operation of these factors in Ceylon, Hong Kong, India, Malaya, Pakistan, the Philippines, and Viet-Nam. The individual country analyses are preceded by a long essay, prepared by the editors, which gives an historical account of the operation of motives, values and beliefs affecting saving and investment in the evolution of the high-income economies of Western Europe and North America. In a concluding essay, the editors compare and contrast the roles of these factors in Western society and in the Asian countries selected for study.

The book contains a wealth of empirical data on and interpretive insights into the relationships between social, psychological and cultural factors and the willingness and ability of people in Asian countries to save and invest their accumulated incomes productively. It will be very useful to anyone who wishes to understand and to influence constructively the process of saving and investment in less developed countries.

-
st
th,

l

a.

-
d

t-

V
2
3

J
A
M

e
4

XU



